Doc. 9.14

Reports and Recommendations of Committees

Plants Committee

REPORT OF THE CHAIRMAN

This report covers the period from January 1992 through to May 1994. During this period the Plants Committee (PC) met on four occasions (Kyoto, Japan, March 1992; Chiang Mai, Thailand, October 1992; Brussels, Belgium, September 1993; San Miguel de Allende, Mexico, May 1994). The Plants Committee comprised the following representatives of the six regions:

Region	Regional Representative	Alternate
Africa	Dr Christine H.S. Kabuye (Kenya)	M. Rejdali Moh (Morocco)
Asia	Dr B.D. Sharma (India)	Dr Shidiki (Pakistan)
Europe	Mr Noel McGough (United Kingdom)	M. Bertrand von Arx (Switzerland)
North America	Dr Bruce MacBryde (USA)	Sr. Wilfrido Márques Ramirez (Mexico)
Oceania	Dr Jim A. Armstrong (Australia)	Ms Janet Owen (New Zealand)
South and Central America and the Caribbean	Dra. María Luisa Reyna de Aguilar (El Salvador)	Sr. Jorge Hernandez Camacho (Colombia)

1. Perspective

Formal meetings of the PC can only be held between meetings of the Conference of the Parties and are announced through the CITES Secretariat to ensure adequate advance notice to members and others interested in participating. Confusion has reigned over the number of informal meetings that have been referred to as CITES Plants Committee Meetings. The PC first met in 1988 (London) and subsequent meetings, variously designated PC Meetings, have occurred in Lausanne (October, 1989), Caracas (July, 1990), Zomba (April, 1991), Kyoto (March, 1992), Chiang Mai (October, 1992), Brussels (September, 1993) and San Miguel de Allende (May, 1994). At its meeting in Brussels, the Committee clarified the nomenclature problems by classifying those meetings held during the Conference of the Parties meeting as Working Group Meetings and the meeting in Caracas, Venezuela, as a CITES Regional Plants Meeting. The Committee proposed that the following numbering regimen be followed in future when referring to meetings of the Plants Committee:

PC1	2-5 November, 1988	London, United Kingdom
PC2	15-17 April, 1991	Zomba, Malawi
PC3	26-28 October, 1992	Chiang Mai, Thailand
PC4	06-08 September, 1993	Brussels, Belgium
PC5	16-20 May, 1994	San Miguel de Allende, Mexico

2. PC Meetings

This report covers the 3rd, 4th and 5th PC meetings. The minutes of these meetings have been published (see References section) and copies are available from the CITES Secretariat. With the exception of the regional representative of South and Central America and the Caribbean, the regional representatives attended all three PC Meetings. The meeting in Brussels (PC4) was the only occasion when funding was available to have both the regional representatives and their alternates attend the PC meeting. A pleasing outcome of the past three meetings was the steady increase in the number of observers from Parties and non-governmental organizations attending with totals of 27 (3rd meeting), 36 (4th meeting) and 80 (5th meeting) participants in attendance. The meeting in Mexico was outstanding in having no fewer than 14 Parties and some 12 non-governmental organizations represented.

3. Major Issues

Criteria to Amend CITES Appendices

One of the most important tasks for the PC since Kyoto was its contribution to the development of New Criteria for Amendment of Appendices I and II. The PC assisted in the formulation of objective biological criteria that would work for plants across their bewildering array of life forms. The plant validation process was thorough and extensive (no fewer than 140 species, across the range of life forms, were validated). The Committee found that, far from being difficult to apply, the draft new biological criteria were readily applicable to plants. Indeed, it confirmed that most of the listed Appendix-I plant taxa were correctly listed and that those taxa that would be downlisted following application of the criteria were the very same taxa that were being considered for downlisting by the Plants Committee! It is with a considerable sense of achievement that the PC commends the new and revised criteria for consideration at the ninth meeting of the Conference of the Parties.

Nursery Registration

At Kyoto, the draft resolution on Nursery Registration (Doc. 8.28) was referred to the PC for further

consideration. The objective of the Nursery Registration proposal is to facilitate trade in artificially propagated plants. If successful, the registration system will facilitate and streamline the handling of import and export documents and should lead to an improved nursery infrastructure in the export countries. Various drafts of the proposal on registration were prepared by the Plants Officer for consideration and amendment by the PC. At its meeting in Mexico the documentation was again reviewed and the PC recommended that the finalized draft be presented for consideration and acceptance by the Conference of the Parties.

Ten-year Review

The PC continued the review of the appendices to identify those taxa that had not been recorded in international trade in the past ten years. Various taxa were considered and debated over the past three PC meetings with the result that a number of Appendix-II taxa have been proposed for delisting or for transfer from Appendix I to Appendix II at the ninth meeting of the Conference of the Parties.

Tropical Timber Listings

At Kyoto, several proposals to amend the appendices to the Convention in relation to tropical timbers were submitted by Parties (see Doc. 8.46, proposals 90-96). Some Parties argued that the International Tropical Timber Organization (ITTO), and not CITES, was the competent authority to consider and implement conservation of tropical timber species. These Parties argued that any further proposals to list tropical timbers in the CITES appendices would only serve to undermine the credibility of CITES. The representative of ITTO stated that his organization would welcome and support a closer co-operation with CITES and it was agreed that the PC should explore the possibility of a closer relationship. Despite attempts to establish closer relations with ITTO since Kyoto, it appears that the organization is not truly committed to close collaboration with CITES. ITTO recently expressed its belief that CITES is stepping beyond the bounds of the intent of the treaty when it moves into the evaluation of major commercial timber species that are abundant in trade. The PC's position is clear however - the Committee is obliged to consider listing in the CITES appendices any plant taxon that is threatened, or may become threatened, by unsustainable levels of international trade. Despite the difficulties encountered, the PC remains committed to establishing closer co-operation with ITTO and recommends that the CITES Secretariat continue its attempts to effect a more constructive collaboration with the organization.

Significant Trade - Plants

The PC believes that Resolution Conf. 8.9, although specifically referred to the Animals Committee, should also be adopted for plants. The PC appointed N. McGough (the representative of Europe) to take on the role of co-ordinator for reviews of significant trade and to advise the PC on how best to promote future plant proposals. This initiative signals a strong commitment by the PC to reviewing international plant trade. The new process will ensure that important recommendations are brought before the PC so that the Convention can be more effectively implemented.

Trade in Medicinal Plants

Medicinal plant trade is becoming an important issue for CITES. The PC is concerned by the increasing evidence that wild-harvested specimens, or processed parts and derivatives, are being traded in enormous amounts. Much of this trade is outside the traditional horticultural trade and importers are apparently not aware to the impacts that such trade is having on wild populations. A number of affected taxa will be proposed for listing at the ninth meeting of the Conference of the Parties and it is very encouraging to see that non-governmental agencies are now prepared to support studies on this important issue.

4. Budget

During the period 1992-1994, the Plants Committee received the following annual budgetary allocation from the Trust Fund:

Year	Allocation (USD)	Expenditure (USD)	
1992	13,500	10,325.48	
1993	26,000	21,967.75	
1994	25,000	21,448.61 *	
* At the time the report was prepared, this figure was not final as some payments remained outstanding.			

The figures presented in the table suggest that the Committee has operated successfully within its annual budget allocation for the period 1992 and 1993. The expenditure for the year 1994 will be higher than allocated in the Trust Fund. The reason for this is that, having its meeting in Mexico, the Plants Committee felt it opportune to have simultaneous interpretation in Spanish and English. Additional funding was sought and received from the Management Authority of the Netherlands and from the Scientific Authorities of Spain and the United States of America. The figures in the table above do not indicate the substantial financial contributions from Parties hosting the Plants Committee meetings, or those of Committee members and others actively involved in carrying out the tasks of the Plants Committee as charged by the Conference of the Parties. The Committee wishes to acknowledge, with gratitude, these additional contributions, which have enabled the Committee to function in a manner and at a level expected by the Parties. If the Conference of the Parties refers an increasing number of tasks to the Plants Committee, it will be necessary to increase considerably the budget allocation to compensate particular Parties/organizations for meeting the hidden administrative and communication costs that are not covered by the Committee's approved budget.

5. Continuing Problems

Enforcement of the Convention

The Plants Officer continues to bring to the attention of the PC the recurring problem of distinguishing wildcollected and artificially propagated plants. Traders continue to mix the two types in their consignments and the shipments are presented as artificially propagated specimens. The names of the offending nurseries may change from year to year but the problem continues primarily because Management Authorities are not paying sufficient attention to regulating plant trade in accordance with the Convention.

Parties also need to improve their annual reporting of plant trade. Reporting is generally very poor for plant specimens, often the species traded are not mentioned, import data are not provided and numerous omissions and errors are made. Parties seem to be unaware of the importance of accurately recording the species names of artificially propagated specimens; such data are essential under the Convention and provide the statistics required to validate proposals for amending the appendices.

Role of the Scientific Authorities

CITES export permits can not be issued unless a nondetriment finding is made by the Scientific Authority of the Party authorizing the export. The PC is concerned over a number of issues regarding the Scientific Authorities in CITES:

- a number of Parties have not established Scientific Authorities;
- some Scientific Authorities are not independent of their Management Authorities; and
- many Scientific Authorities have not appointed botanical experts to scrutinise CITES plant issues.

breaches problems Clearly, whilst these of regulation implementation remain. effective of international plant trade is not possible. At the eighth meeting of the Conference of the Parties a Resolution was adopted (Conf. 8.6) requiring the Secretariat to prepare general guidelines for the Scientific Authorities to conduct appropriate scientific reviews and to make findings as required by the Convention. The PC strongly supports this initiative and, through its regional representatives, will continue to assist Parties establish within their Scientific Authorities the botanical expertise required to effect the requirements of the Convention.

Further Directions

Regrettably, the implementation of CITES with regard to international plant trade has always been, and still remains, a matter for concern. The PC was established to help address these problems and to provide the Conference of the Parties with the much needed expert technical advice it requires to consider the implementation of the Convention with respect to the plant trade. The PC is attempting to establish effective networks within the regions (particularly in the larger regions of Africa, Asia and South and Central America and the Caribbean) so that proposals that will have an impact on plant trade in the countries of each region are discussed adequately prior to the meetings of the Conference of the Parties. Little progress will be made however if the Parties remain apathetic to plant trade issues or choose to ignore the opportunities to liaise with their representatives on the PC.

Subjects such as the tropical timber proposals are bringing important plant trade issues before the Parties.

- 6. <u>References</u>
 - Armstrong, J.A., 1992a. Report on plant issues, 8th meeting of the Conference of the Parties (COP8), Kyoto, Japan 2-13 March 1992. In CITES PC, 1992.
 "Report of Meetings. Zomba, Malawi, 15-17 April 1991; Kyoto, Japan, 13 March 1992. Incorporating a summary report of plant issues discussed at the 8th CITES Conference of the Parties, Kyoto, Japan, 2-13 March 1992". Royal Botanic Gardens, Kew, United Kingdom pp. 29-32.
 - Armstrong, J.A. (Ed.), 1992b. "CITES Plants Committee, Report of Meeting, Chiang Mai, Thailand, 26-28 October 1992". Published for the CITES Secretariat by the Department of Conservation and Land Management, Perth Western Australia. pp. 47.
 - Armstrong, J.A. (Ed.), 1993. "CITES Plants Committee, Report of Meeting Brussels, Belgium, 6-8 September 1993". Published for the CITES Secretariat by the Department of Conservation and Land Management, Perth Western Australia. pp. 60.
 - CITES PC, 1992. "Report of Meetings. Zomba, Malawi, 15-17 April 1991; Kyoto, Japan, 13 march 1992. Incorporating a summary report of plant issues discussed at the 8th CITES Conference of the Parties, Kyoto, Japan, 2-13 March, 1992". Royal Botanic Gardens, Kew, United Kingdom.
 - CITES PC, 1994. "Report of 5th Plants Committee Meeting. San Miguel de Allende, Mexico, 16-20 May 1994". Royal Botanic Gardens, Kew, United Kingdom.

10 July 1994

Dr Jim Armstrong Chairman

Doc. 9.15 (Rev.)

Committee Reports and Recommendations

IDENTIFICATION MANUAL COMMITTEE

1. Introduction

The Committee still has no Chairman. The present report is therefore presented by the Secretariat.

2. General Activities

The former Chairman, who is still administrating the Committee's account, contracted, in 1990, Dr Jean-Pierre Biber as part-time editor for the English edition of the Identification Manual. The editor's duties include the updating, for the purposes of the Manual, the checklists of the species included in the appendices and the provision of camera-ready manuscripts. As a consequence of this work, it has been possible to reduce the printing costs considerably. In 1991, the contract was extended to cover also the editing of the French edition. In 1994, the editor signed a contract direct with the Secretariat. It will end on 31 December 1994 and will be extended until 31 December 1995. If the proposed budget for 1996-1997 is approved, it may be prolonged.

Since 1979, only 23 Parties have submitted manuscripts of data sheets. The main contributor has been Switzerland (45 %), followed by Germany (10,4 %), Canada (10,1 %), Australia and the United Kingdom (8,5 % each).

Few of the Parties that successfully proposed the inclusion in Appendix I or II of new taxa at the Kyoto meeting have complied with Resolution Conf. 6.1 Annex 4, by providing the corresponding information to prepare Identification Manual data sheets. In fact, only Germany and Sweden complied. Apparently the listing itself is considered to be more important than the subsequent enforcement.

The following data sheets are still due:

ne following data sr	neets are still due:
Australia	Hoplocephalus bungaroides (COP 5) Rheobatrachus, 2 species (COP 5)
China	Budorcas taxicolor (COP 5)
Ecuador	Trochilidae, 315 species (COP 6)
India	Ptyas mucosus (COP 7) Naja (COP 7) Ophiophagus hannah (COP 7)
Israel	Stony corals, remaining taxa (COP 7)
Italy	Vipera ursinii (COP 6)
Netherlands	Dyscophus antongilii (COP 6) Aceros spp. (COP 8) Anorrhinus spp. (COP 8) Anthroceros spp. (COP 8) Buceros spp. (COP 8) Penelopides spp. (COP 8) Ptilolaemus spp. (COP 8) Phyllobates, 5 species (COP 6) Achatinella spp. (COP 6)
Niger	Addax nasomaculatus (COP 4) Oryx dammah (COP 4)
Niger (cont)	Gazella dama (COP 4) Ammotragus lervia (COP 4)

Paraguay	Ramphastidae spp. (COP 8) <i>Dracaena</i> , 2 species (COP 7)
Spain	Lacertidae, 3 species (COP 6)
Suriname	Dendrobates, 47 species (COP 6)
Thailand	Aceros, 5 species (COP 8) Anorrhinus,2 species (COP 8) Anthracoceros, 3 species (COP 8) Pitta, 2 species (COP 7)
USA	Acerodon, 5 species (COP 7) Pteropus, 61 species (COP 6 and 7) Phrynosoma coronatum (COP 8) Polyodon spathula (COP 8) Brachypelma smithii (COP 5) Strombus gigas (COP 8)
Uruguay	Dusicyon gymnocercus (COP 6)

In addition, apart from Canada and Uruguay, none of the Parties having included species in Appendix III has submitted texts on the species concerned (Colombia, Ghana, Guatemala, Honduras, India, Mauritius, Thailand, Tunisia).

3. English Edition

After the Kyoto meeting, counterpart contributions were received only from Switzerland (revision of Felidae, Tayassuidae, Picathartidae, Cracidae, Phasianidae, Cacatuinae, Musophagidae, Boidae and five species of birds), the Netherlands (*Mycteria cinerea*), France (*Eudocimus ruber*), Germany (*Corucia zebrata, Shinosaurus crocodilurus* and genus *Phelsuma*), Brazil (*Anodorhynchus hyacinthinus*), Sweden (*Vipera wagneri*) and the United Kingdom (*Hirudo medicinalis* and the family Papilionidae). In addition, Germany provided eight colour sheets on *Phelsuma*.

The following sections of volume 1, 1a, 2, 2a and 3 have been printed and distributed to the Parties:

Felidae (update)	36	sheets
Tayassuidae	2	sheets
Birds	68	sheets
Reptiles	87	sheets
Papilionidae	9	sheets
Total	202	sheets

A detailed list is provided in Annex 1

Thanks to a contribution from the Government of Germany, eight colour sheets on *Phelsuma* have been printed. They will be distributed with the data sheets on *Phelsuma*.

A colour poster on cockatoos has been bought by the Secretariat and distributed as part of the Manual.

The following sections of volumes 2, 2a and 3 have been edited and will be printed soon:

Mycteria cinerea	1	sheet
Megacephalon maleo	1	sheet
Cracidae	14	sheets
Meleagris ocellata	1	sheet
Musophagidae	7	sheets
Phelsuma	54	sheets

Vipera wagneri Hirudo medicinalis	-	sheet sheet
Total	-	sheets

The updates of the following species lists have been edited, but will be updated and printed after the next meeting of the Conference of the Parties:

Mammalia	20	sheets
Aves	6	sheets
Reptilia	7	sheets
Amphibia	1	sheet
Pisces	1	sheet
Invertebrates	2	sheets

The following contributions are under preparation:

Ursidae (update)		
Canada	7	sheets
Lutrinae (update)		
Secretariat	11	sheets
Eudocimus ruber		
France	1	sheet
Bucerotidae		
Netherlands		
Bucerotidae (update	e)	
Secretariat		
Brachypelma		
United States	9	sheets

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The summary status of the FAUNA part is as follows:

	31.12.87	31.09.89	01.01.92	30.06.94
Data sheets published	1020*	1293*	1359 (38)	1525 (74)
Data sheets in print	77	25	0	80 (37)
Contributions received	225	39	164	0
Contributions under preparation	129	217	90	15 (23)
TOTAL	1451*	1574*	1613 (38)	1620 (134)
* Figures include updated data sheets				
Numbers in bracket are related to updated data sheets				

In 1993, the Secretariat prepared new lists of data sheets included in each volume, an index of general data sheets and an index of species included in data sheets.

In 1993, the binders for volume 3a were prepared, they will be later distributed with the Phelsuma sheets.

Identification Manual - Status at 30.06.1994





4. French Edition

There were very serious technical problems with the French edition. In addition, it was necessary to revise the texts of 174 sheets.

The following sections of volume 2 of the French edition have been printed:

Mammals	309	sheets
Birds	117	sheets
Total	426	sheets

A detailed list is provided in Annex 2.

One sheet (Eudocimus ruber) is ready for printing.

The following species lists have been edited, but will be updated and printed after the next meeting of the Conference of the Parties:

Mammalia	20	sheets
Aves	6	sheets
Reptilia	7	sheets
Amphibia	1	sheet

Pisces	1 sheet
Invertebrates	2 sheets

The following data sheets have been translated and will be edited and printed at the end of 1994 or at the beginning of 1995:

Mammals	146	sheets
Birds	183	sheets
Reptiles	86	sheets
Butterflies	48	sheets
Total	463	sheets

A detailed list is provided in Annex 3.

Financial contributions have been provided by France. In addition, France contracted the Museum of Natural History (Paris) to provide the translation of 400 data sheets.

Binders for volumes 1a, 2a and 3a have been prepared.

The colour sheets on Phelsuma have been printed in French and will be distributed later with volume 3.

	01.01.1992	30.06.1994
Data sheets printed	105	426
Data sheets ready for printing		38
Data sheets translated	70	463
Data sheets in translation	20	0 ¹
TOTAL	195	927
* Contract for translation of data sheets will be made later in 1994		

5. Spanish Edition

The Government of Spain has agreed to prepare the Manual in Spanish. On 18 July 1994 the Scientific Authority of Spain informed the Secretariat that the first volume of the Identification Manual in Spanish was available. The Secretariat together with the Scientific Authority of Spain will establish the procedure to send it to the Parties.

The Secretariat has printed the colour sheets on Phelsuma in Spanish.

6. Russian Edition

Thanks to a grant provided by Germany, the translation into Russian of the Manual has been made possible. About 1300 data sheets had been translated by the end of June 1994 and most of them have been edited. The printing and distribution will be done before the end of 1994.

The Secretariat has printed the colour sheets on Phelsuma in Russian.

7. Flora

Germany has prepared the sheets for the Identification Manual for the species of Tillandsia currently listed in Appendix II. After the English text has been edited, these sheets will be distributed to the Parties in early 1995.

The Netherlands has provided financial support to prepare the sheets to differentiate wild-collected and artificially propagated specimens of plants in trade. Contracts have been established with consultants to prepare the relevant sheets for Orchidaceae and Cactaceae, to be completed by the end of 1994. They will be distributed to the Parties in the first half of 1995.

The Governments of Japan and Netherlands have provided financial support to prepare the Identification Manual sheets for the timber species included in the CITES appendices. Following recommendations of the Plants Committee, the Secretariat is currently in the process of preparing a format and will contract consultants before the end of 1994.

As a result of discussions with the Chairman of the IUCN/SSC Carnivorous Plant Specialist Group, a contract will be established with this Specialist Group for the preparation of the Identification Manual sheets on carnivorous plants. It will be completed and distributed to the Parties by the end of 1995.

8. Financial Status

Apart from contributions taken from the CITES budget, financial support has been received from Germany (English and Russian editions), Japan (English edition) and France (French edition).

The status of the Identification Manual account is provided in Annex 4.

Although it will no longer be used for payment of the editor, the Identification Manual account will be maintained to cover miscellaneous expenses related to the Identification Manual (e.g. drawings).

Doc. 9.15 (Rev.) Annex 1

English Edition

Data sheets printed (1 January 1992-30 June 1994) or ready for printing by 30 June 1994

	Management Authority submitting	Number of sheets	Printing status
Species listed – Aves (update)		20	ready for printing
Species listed – Mammalia (update)		6	ready for printing
Species listed – Reptilia (update)		7	ready for printing
Species listed – Amphibia (update)		1	ready for printing
Species listed – Pisces (update)		1	ready for printing
Species listed – Invertebrata (update)		2	ready for printing
Species lists will be updated after the ninth mee	eting of		

	Management Authority submitting	Number of sheets	Printing status
the Conference of the Parties and printed then.			
Felidae (update)	Switzerland	36	printed
Tayassuidae	Switzerland	2	printed
Pelecanus crispus	Switzerland	1	printed
Mycteria cinerea	Netherlands	1	ready for printing
Balaeniceps rex	Netherlands	1	printed
Pandion haliaetus	Switzerland	1	printed
Sagittarius serpentinus	Switzerland	1	printed
Picathartidae	Switzerland	2	printed
Megacephalon maleo	Switzerland	1	ready for printing
Cracidae	Switzerland	14	ready for printing
Meleagris ocellata	Switzerland	1	ready for printing
Phasianidae	Switzerland	43	printed
Cacatuinae	Switzerland	18	printed
Anodorhynchus hyacinthinus	Brazil	1	printed
Musophagidae	Switzerland	7	ready for printing
Clemmys insculpta	Switzerland	1	printed
Corucia zebrata	Germany	1	printed
Shinosaurus crocodilurus	Germany	1	printed
Phelsuma	Germany	54	ready for printing
Colour sheets on Phelsuma	Germany	8	printed
Vipera wagneri	Sweden	1	ready for printing
Boidae	Switzerland	66	printed
Papilionidae	United Kingdom	9	printed
Hirudo medicinalis	United Kingdom	1	ready for printing

Doc. 9.15 (Rev.) Annex 2

French Edition

Data Sheets printed (1January 1992 to 30 June 1994) or ready for printing by 30 June 1994

	Management Authority submitting (given for new sheets only)	Number of Sheets	Printing Status
Species listed – Aves (update)		20	ready for printing
Species listed – Mammalia (update)		6	ready for printing
Species listed – Reptilia (update)		7	ready for printing
Species listed – Amphibia (update)		1	ready for printing
Species listed – Pisces (update)		1	ready for printing
Species listed – Invertebrata (update)		2	ready for printing

Species lists will be updated after the ninth meeting of the Conference of the Parties and printed then.

	Management Authority submitting (given for new sheets only)	Number of Sheets	Printing Status
Chiroptera		2	printed
Hylobatidae		10	printed
Cercopithecidae		58	printed
Myrmecophagidae		3	printed
Bradypodidae		2	printed
Choloepidae		2	printed
Dasypodidae		4	printed
Manidae		9	printed
Cetacea		80	printed
Carnivora General notes		1	printed
Canidae		12	printed
Ursidae		18	printed
Mustelidae		17	printed
Viverridae		10	printed
Hyaenidae		3	printed
Felidae		36	printed
Tubulidentata		2	printed
Orycteropodidae		1	printed
Elephantidae		5	printed
Equidae		3	printed
Tapiridae		7	printed
Rhinocerotidae		8	printed
Artiodactyla / Non-ruminantia		1	printed
Suidae		2	printed
Tayassuidae		1	printed
Hippopotamidae		1	printed
Artiodactyla		1	printed
Antilocapridae		2	printed
Pelecanidae	Switzerland	1	printed
Eudocimus ruber	France	1	ready for printing
Pandion haliaetus	Switzerland	1	printed
Accipitridae		10	printed
Sagittarius serpentinus	Switzerland	1	printed
Gruiformes		17	printed
Psittacidae		38	printed
Strigiformes		40	printed
Picathartidae	Switzerland	2	printed
Fringilidae		3	printed
Estrildidae		3	printed

	Management Authority submitting (given for new sheets only)	Number of Sheets	Printing Status
Sturnidae		1	printed

Doc. 9.15 (Rev.) Annex 3

French Edition Data sheets translated by 30 June 1994

	Number of Sheets
Monotremata and Marsupialia	21
Primates (gen. notes)	1
Prosimiae (gen. notes)	4
Tupaiidae	8
Lemuridae	15
Cheirogaleidae	6
Daubentoniidae	1
Galagidae	5
Indriidae	6
Lorisidae	4
Pongidae	6
Leporidae	4
Rodentia (gen. notes)	1
Sciuridae	10
Chinchillidae	3
Carmelidae	4
Tragulidae	2
Cervidae	20
Bovidae	7

	Number of Sheets
Bovidae	18
Struthioniformes	2
Rheiformes	3
Sphenisciformes	4
Ardeidae	5
Ciconiidae	6
Threskiornithidae	2
Rallidae	4
Otididae	26
Phasianidae	43
Cacatuinae	17
Amazona spp.	25
Anodorhynchus hyacinthinus	1
Paradisaeidae	45
Testudinata	40
Varanidae	6
Crocodylidae	21
Boidae	19
Papilionidae	48

Doc. 9.15 (Rev.) Annex 4

Income/Expenditure 1 January 1992 to 30 June 1994 (Committee's account only)

Date	Text	Debit CHF	Credit CHF
01.01.92	Credit balance		81000,05
08.01.92	Contract editor	16000,00	
24.02.92	Contract editor	6270,00	
28.02.92	Contract editor	6270,00	
10.04.92	Contract editor	8970,00	
30.04.92	Contract editor	6720,00	
17.06.92	Contract editor	7040,00	

Date	Text	Debit CHF	Credit CHF
01.01.92	Credit balance		81000,05
08.01.92	Contract editor	16000,00	
24.02.92	Contract editor	6270,00	
28.02.92	Contract editor	6270,00	
09.07.92	Contract editor	7040,00	
31.07.92	Contract editor	7040,00	
31.08.92	Contract editor	7040,00	
07.09.92	Transfer from Trust Fund		26661,60
30.09.92	Contract editor	7040,00	
04.11.92	Contract editor	7040,00	
30.11.92	Contract editor	7040,00	
30.12.92	Contract editor	7040,00	
31.12.92	Interest		1631,75
31.12.92	Тах	571,10	
31.12.92	Fee	13,30	
28.01.93	Transfer from Trust Fund		30000,00
11.03.93	Contract editor	14080,00	
04.05.93	Contract editor	14080,00	
29.06.93	Transfer from Trust Fund		90730,05
27.07.93	Contract editor	14464,00	
14.09.93	Contract editor	14464,00	
16.11.93	Contract editor	14464,00	
31.12.93	Interest		1744,00
31.12.93	Тах	160,40	
31.12.93	Fee	14,65	
03.01.94	Contract editor	14464,00	
21.03.94	Contract editor	14464,00	
25.05.94	Contract editor	14464,00	
		216703,45	231767,45
30.06.94	Balance		15064,00

Doc. 9.16 (Rev.)

Committee Reports and Recommendations

NOMENCLATURE COMMITTEE

Stephen R. Edwards, Chairman Noel McGough, Vice-Chairman

This report is presented in four parts: 1) review of nomenclature of animal taxa listed in Appendix I prior to 1977; 2) summary of the status of checklists and other activities; 3) proposed workplan (1995-97), and 4) proposed operating budget. Each part concludes with specific recommendations for consideration at the ninth meeting of the Conference of the Parties. The work was pursued through two subcommittees (animals and plants) that were established at the eighth meeting of the Conference of the Parties.

I. REVIEW OF NOMENCLATURE OF APPENDIX-I LISTINGS PRIOR TO 1977

The Conference of the Parties at its eighth meeting (Kyoto, Japan) requested the Nomenclature Committee to review the nomenclatorial status of animal species that were listed in Appendix I prior to the adoption of the Berne Criteria in 1977. The review was to establish the taxonomic limits for those taxa. Because the taxa were listed without any documentation it has not been possible to determine their taxonomic limits.

A preliminary report (Annex 1) was prepared by Tim Inskipp (World Conservation Monitoring Centre). It has been reviewed and endorsed by the Nomenclature Committee (animals subcommittee) for submission to the ninth meeting of the Conference of the Parties. The report includes:

- a list of the taxa whose protection status has not changed under CITES since they were listed. The proponent for the original listing is cited (when known) and an explanatory note is referenced;
- explanatory notes and comments referenced in the species listing that highlight issues or problems associated with each taxon;
- bibliographic citations to the literature referenced in the explanatory notes; and
- recommended actions.

The process required to research and verify the nomenclatural changes for each taxon is timeconsuming and dependent on advice and assistance from specialists in the different taxonomic groups. As a result, explanatory notes have not been prepared for all listed taxa and several of the bibliographic citations are incomplete and/or require validation.

Recommendations:

Several recommendations are presented to the Conference of the Parties for consideration. To facilitate discussion of the actions recommended in Annex 1, they are presented below according to the type of action recommended:

- A. Spelling changes and/or additions to or changes in taxonomic notes;
- B. Changes in the names of listed taxa; and
- C. Recommended changes where a proposal to amend Appendix I is required.
- A. <u>Spelling changes and/or additions to or changes in</u> <u>taxonomic notes:</u>

The recommended actions listed below clarify the nomenclatural status of the taxa. The actions do not alter

the intent of the Parties at the time the proposals were adopted. Note numbers refer to the explanatory notes listed in Annex 1. <u>Adoption of the report of the</u> <u>Nomenclature Committee by the Conference of the</u> <u>Parties will indicate that it endorses the following recom-</u> <u>mended actions:</u>

Mammalia:

- 1. Add a taxonomic note to the listing of *Callithrix jacchus aurita*: `Also referenced as *Callithrix aurita*' (note 20).
- 2. Add a taxonomic note to the listing of *Callithrix jacchus flaviceps*: `Also referenced as *Callithrix flaviceps*' (note 21).
- Change the spelling of Colobus pennantii kirki to Colobus pennantii kirkii and change taxonomic note to: `Includes synonym Colobus badius kirkii, and also referenced as Procolobus pennantii kirki (note 35).
- 4. Change the taxonomic note to the listing of *Colobus rufomitratus* to: `Includes synonym *Colobus badius rufomitratus*, and also referenced as *Procolobus rufomitratus*' (note 36).
- 5. Add a taxonomic note to the listing of *Presbytis* entellus: `Also referenced as *Semnopithecus* entellus' (note 39).
- 6. Add a taxonomic note to the listing of *Presbytis* geei: `Also referenced as *Semnopithecus geei* and *Trachypithecus geei*' (note 40).
- 7. Add a taxonomic note to the listing of *Presbytis pileatus*: `Also referenced as *Semnopithecus pileatus* and *Trachypithecus pileatus*' (note 41).
- 8. Add a taxonomic note to the listing of *Lutra felina*: `Also referenced as *Lontra felina*' (note 63).
- 9. Change the taxonomic note to the listing of *Lutra longicaudis* to: Includes synonyms *Lutra annectens*, *Lutra enudris*, *Lutra incarum* and *Lutra platensis*, and also referenced as *Lontra longicaudis*' (note 64).
- 10. Add a taxonomic note to the listing of *Lutra provocax*: `Also referenced as *Lontra provocax*' (note 66).
- 11. Add a taxonomic note to the listing of *Hyaena brunnea*: `Also referenced as *Parahyaena brunnea*' (note 70).
- Add a taxonomic note to the listing of *Felis concolor* coryi: `Also referenced as *Puma concolor coryi* (note 73).
- 13. Add a taxonomic note to the listing of *Felis concolor* costaricensis: `Also referenced as *Puma concolor* costaricensis' (note 74).
- 14. Change the spelling of *Felis concolor cougar* to *Felis concolor couguar* and add a taxonomic note to the listing: `Also referenced as *Puma concolor couguar*' (note 75).
- 15. Add a taxonomic note to the listing of *Felis jacobita*: `Also referenced as *Oreailurus jacobita*' (note 76).

- 16. Add a taxonomic note to the listing of *Felis* marmorata: `Also referenced as *Pardofelis* marmorata' (note 77).
- 17. Add a taxonomic note to the listing of *Felis* planiceps: `Also referenced as *Prionailurus* planiceps' (note 79).
- 18. Add a taxonomic note to the listing of *Felis temminckii*: `Also referenced as *Catopuma temminckii* (note 80).
- 19. Add a taxonomic note to the listing of *Panthera uncia*: `Also referenced as *Uncia uncia*' (note 85).
- 20. Add a taxonomic note to the listing of *Equus* przewalskii: `Also referenced as *Equus caballus* przewalskii (note 93).
- 21. Change the taxonomic note to the listing of *Cervus* dama mesopotamicus to: `Also referenced as Dama mesopotamica' (note 101).
- 22. Change the spelling of *Cervus duvauceli* to *Cervus duvaucelii* (note 102).
- 23. Change spelling of *Cervus eldi* to *Cervus eldii* (note 104).
- 24. Change the taxonomic note to the listing of *Cervus* porcinus calamianensis to: `Also referenced as *Axis* calamianensis' (note 106).
- 25. Change the spelling of *Cervus porcinus kuhli* to *Cervus porcinus kuhlii*, and change taxonomic note to the listing to `Also referenced as *Axis kuhlii* (note 107).
- 26. Change the spelling of *Pudu pudu* to *Pudu puda* and add a taxonomic note to the listing: 'Also refereced as *Pardu pardu*'(note 110).
- 27. Add a taxonomic note to the listing of *Capricornis* sumatraensis: `Also referenced as *Naemorhedus* sumatraensis' (note 118).
- 28. Change the spelling of *Nemorhaedus goral* to *Naemorhedus goral* and add a taxonomic note to the listing: `Includes synonyms *Naemorhedus baileyi* and *Naemorhedus caudatus*' (note 120).
- 29. Change the spelling of *Ovis ammon hodgsoni* to *Ovis ammon hodgsonii* (note 122).
- 30. Add a taxonomic note to the listing of *Rupicapra rupicapra ornata*: `Also referenced as *Rupicapra pyrenaica ornata*' (note 125).

Aves:

- 31. Add a taxonomic note to the listing of *Anas oustaleti*: `Probably a hybrid between *Anas platyrhynchos* and *Anas superciliosa*' (note 136).
- 32. Add a taxonomic note to the listing of *Chondrohierax uncinatus wilsonii*: `Also referenced as *Chondrohierax wilsonii* (note 145).
- 33. Change the taxonomic note to the listing of *Falco* pelegrinoides to: `Also referenced as *Falco* peregrinus pelegrinoides and *Falco* peregrinus babylonicus' (note 152).
- 34. Change the spelling of *Rhynochetus jubata* to *Rhynochetos jubatus* (note 188).
- 35. Add a taxonomic note to the listing of *Psittacula* echo: `Also referenced as *Psittacula krameri echo*' (note 214).
- 36. Add a taxonomic note to the listing of *Dasyornis longirostris*: `Also referenced as *Dasyornis brachypterus longirostris*' (note 232).

Reptilia:

- Add a taxonomic note to the listings of *Trionyx* gangeticus, *Trionyx hurum* and *Trionyx nigricans*: `Also referenced in genus *Aspideretes*' (notes 251-253).
- Add a taxonomic note to the listing of Crocodylus novaeguineae mindorensis: `Also referenced as Crocodylus mindorensis' (note 261).
- Add a taxonomic note to the listing of *Python* molurus molurus: `Includes synonym *Python* molurus pimbura' (note 278).

Mollusca:

- 40. Change the spelling of *Lampsilis higginsi* to *Lampsilis higginsii* (note 304).
- 41. Change the spelling of *Lampsilis satura* to *Lampsilis satur* (note 306).

B. Changes in the names of listed taxa

The following recommended changes in names of taxa listed in Appendix I prior to 1977: a) incorporate changes in the names subsequent to the listing; b) ensure that if a listing has been revised, the limits of the taxa at the time the Parties approved the original listing are retained; or c) rectify consolidated listings of species at the genus level. Adoption of the new names reflects the most recent scientific views and provides an authoritative basis to monitor future nomenclatural changes. The rationale for the change is presented following each recommended action. Adoption of the report of the Nomenclature Committee by the Conference of the Parties indicates that it endorses the following recommended actions, unless otherwise noted:

Mammalia:

1. Add Alouatta pigra to Appendix I

This taxon was originally listed as Alouatta palliata (villosa). It is likely that the parentheses were originally used in the sense of inclusion cf. Lutra longicaudis (platensis/annectens) rather than being equivalent to, cf. the 1973 listing Priodontes giganteus (=maximus) or Oryx (tao) dammah (i.e. with the synonym prefixing the accepted name). A. villosa (J. E. Gray 1845) was considered indeterminable by Lawrence (1933) in a revision of the group. She used the next available name, palliata, and recognized seven subspecies, among them two new ones, A. palliata pigra from northern Guatemala and A. palliata luctuosa from Belize. However, Hall & Kelson (1959) reverted to the use of villosa for the group, on the basis of priority, and they recognized an eighth subspecies, A. v. villosa from central and eastern Guatemala. Hill (1962) split palliata into two species and, because he also regarded villosa as indeterminable, he named his Guatemalan species A. pigra, with luctuosa as a synonym. Napier (1976) accepted the validity of the name villosa for the black howler of Guatemala and southern Mexico, but both Honacki et al. (1982) and Wilson & Reeder (1993) regarded it as a nomen dubium and used the name pigra for this form. If it is accepted that villosa was originally listed in an inclusive sense, then Alouatta pigra (of which villosa is a synonym) should be listed in Appendix I as well as A. palliata. Hall (1981) recognized A. pigra in his revision of Hall and Kelson (1959).

2. <u>Change Nasalis spp. back to Nasalis concolor and</u> <u>Nasalis larvatus.</u>

Nasalis larvatus and *Simias concolor* were listed as separate species originally. For brevity, because they were the only species recognized in the genus, the listing was consolidated to the genus. The change to *Nasalis* spp. increases the potential protection coverage on Appendix I to new taxa that were not considered in the original proposal. The listing should be revised to *Nasalis concolor* and *Nasalis larvatus*.

3. <u>Change Balaena spp. back to Balaena glacialis and</u> <u>Balaena mysticetus; change taxonomic note to</u> <u>Balaena glacialis to 'includes generic synonym</u> <u>Eubalaena and synonym Balaena australis'</u>

Balaena mysticetus and Eubalaena spp. were the original listings. The change to Balaena spp. increases the potential coverage in Appendix I to taxa that were not considered in the original proposal. The listing should be revised to Balaena glacialis and Balaena mysticetus. Wilson and Reeder (1993) maintain Eubalaena as a separate genus and also recognize *E. australis* as a separate species.

Aves:

4. <u>Replace Falco newtoni aldabranus by the</u> <u>Seychelles population of Falco newtoni.</u>

> This subspecies is not recognized by Stresemann and Amadon (1979), where *F. newtoni* is listed as monotypic. It is not distinguishable from the Malagasy population of the species, except by the slightly smaller average size (Benson and Penny 1971) and, therefore, the listing should be replaced by the population of the Seychelles of *Falco newtoni*.

5. <u>Change Lophophorus spp. back to Lophophorus</u> <u>impejanus, Lophophorus Ihuysii and Lophophorus</u> <u>sclateri.</u>

The original listing was *Lophophorus impejanus, L. Ihuysii* and *L. sclateri.* For brevity, because they were the only species recognized in the genus, the listing was consolidated to the genus. The change to *Lophophorus* spp. increases the potential protection coverage in Appendix I to taxa that were not considered in the original proposal. The listing should be revised to the three original species.

6. <u>Change Pezoporus occidentalis back to</u> <u>Geopsittacus occidentalis and add taxonomic note</u> 'Also referenced as *Pezoporus occidentalis*'

This taxon was formerly listed as *Geopsittacus occidentalis*. Sibley and Monroe (1993) use this name.

7. <u>Change the listing of *Glaucis dohrnii* to *Ramphodon* <u>dohrnii and change the taxonomic note to the listing</u> <u>to `Formerly included in the genus *Glaucis*'</u></u>

The taxon was originally listed as *Ramphodon dohrnii*, but changed to *Glaucis dohrnii* following Morony *et al.* (1975). Sibley and Monroe (1990) include it in the genus *Ramphodon* and the listing should be revised to reflect this.

8. <u>Change Picathartes spp. back to Picathartes</u> <u>gymnocephalus and Picathartes oreas</u>

The original listings were *Picathartes gymnocephalus* and *Picathartes* oreas. For brevity, because they were the only species recognized in the genus, the listing was consolidated to the genus. The change to *Picathartes* spp. increases

the potential protection coverage in Appendix I to taxa that were not considered in the original proposal. The listing should be revised to the two original species.

Reptilia:

- 9. Change Kachuga tecta tecta to Kachuga tecta
- King and Burke (1989) recognize two subspecies of *K. tecta: K. t. tecta* and *K. t. circumdata.* However, Moll (1987) treats *circumdata* as a race of *K. tentoria* with *K. tecta* monotypic and his distribution maps of *tecta* and *tentoria* indicate that *tecta* and *circumdata* are sympatric. This view is also shared by Das (1991) and, if accepted, the listing of *Kachuga tecta tecta* in Appendix I should be replaced by *Kachuga tecta.* However, Moll found *K. tecta* to be `relatively common' in 10 sites visited in northern India and Khan (1982) judged it to be the most common turtle in Bangladesh. It may be more appropriate to consider the transfer of *K. tecta* to Appendix II.
- 10. <u>Change Geochelone elephantopus to Geochelone</u> <u>nigra and add taxonomic note 'also referenced as</u> <u>Geochelone elephantopus'</u>

King and Burke (1989) use *G. nigra* (Quoy and Gaimard 1824) for this species, and give references for this decision.

11. Change Sphenodon punctatus to Sphenodon spp.

The original listing was intended to cover all tuataras. One population has now been recognized as a separate species. The listing should be changed to *Sphenodon* spp. to accommodate this and potential future splits.

Plants:

The plants subcommittee recommends the following name changes to taxa listed in Appendix I:

- 12. <u>Change Coryphanta minima to Escobaria minima</u> and add taxonomic note 'Formerly included in the genus Coryphanta'
- 13. <u>Change Coryphanta sneedii to Escobaria sneedii</u> and add taxonomic note 'Formerly included in the genus Coryphanta'.
- 14. <u>Change Pediocactus papyracanthus to</u> <u>Sclerocactus papyracanthus and add taxonomic</u> <u>note 'Formerly included in the genus Pediocactus'</u>

These changes follow the nomenclature in the Checklist of Cactaceae adopted by CITES as a guideline when making reference to names of species of Cactaceae.

C. <u>Recommended changes where a proposal to amend</u> <u>Appendix I is required</u>

In several cases, scientific reviews of taxa have resulted in changes in the taxonomic limits and nomenclature of species that were listed in Appendix I prior to 1977. It may be appropriate to remove some names from Appendix I because the taxon that is listed is no longer considered valid. To ensure that there is no misinterpretation of the intent of the Parties at the time the taxa were listed, the Nomenclature Committee recommends that interested Parties prepare proposals to accomplish the actions recommended below. Some Parties have submitted proposals to address several of these actions at the request of the Nomenclature Committee. Explanatory notes from Annex 1 are provided below.

Mammalia:

1. <u>Delete Ateles geoffroyi panamensis from</u> <u>Appendix I.</u>

Kellogg and Goldman (1944) described this subspecies as `Very similar to *ornatus* of the Caribbean slope of Costa Rica, but reddish tone more intense, the back less obscured by overlying dusky hairs; inner side of upper arm pinkish cinnamon to ferruginous'. Napier (1976) synonymised *A. g. panamensis* with *ornatus* Gray 1870 and pointed out that the type specimen of *ornatus* was not examined by Kellogg & Goldman (1944). The latter authors' comparison with specimens currently assigned to *ornatus* from the Caribbean slope of Costa Rica is invalid.

2. <u>Either replace the existing Appendix-I listing of *Felis* bengalensis bengalensis with the populations of the relevant range States or transfer the subspecies to Appendix II.</u>

There has never been a comprehensive review of geographic variation in this species. It is not possible to define the limits of the nominate subspecies because the characters used in the infraspecific taxonomy of this species are not clear cut and the validity of several subspecies is in doubt. In order to simplify enforcement problems relating to this species, either the listing of F. b. bengalensis in Appendix I should be replaced by the populations of the relevant range States (which would require an amendment proposal because F. b. horsfieldi also occurs in India). or F. b. bengalensis should be transferred to Appendix II. Wilson and Reeder (1993) and Corbet and Hill (1992) treated this as Prionailurus bengalensis bengalensis.

Aves:

3. <u>Delete Psittacus erithacus princeps from</u> <u>Appendix I.</u>

> Almost certainly an invalid taxon. This subspecies is reportedly larger and darker than the nominate subspecies, from the mainland, but Amadon (1953) pointed out that there is a cline of increasing size from west to east, the birds from the continent to the east being larger still. He also pointed out that colour was related to state of plumage.

Reptilia:

4. <u>Transfer Lissemys punctata punctata from</u> <u>Appendix I to Appendix II and include the species</u> <u>Lissemys punctata in Appendix II.</u>

The provenance of the type specimen has been redetermined (see Webb 1980, 1982) which creates a doubt as to which population is covered by the Appendix-I listing. The Ten-Year-Review Central Committee agreed (CITES Doc. 4.37 Annex 2) that `it would be preferable to list *Lissemys punctata* in Appendix II than simply to transfer the nominal subspecies from Appendix I to Appendix II'. This has still not been addressed although correspondence from the CITES Management Authority of India tabled at the meeting of the Animals Committee in September 1993 indicated that a proposal may be prepared for the ninth meeting of the Conference of the Parties.

5. Delete Trionyx ater from Appendix I.

King and Burke (1989) quote Smith and Smith (1979) who showed that this taxon is a synonym of *Apalone spinifera* Le Sueur 1827 (= *Trionyx spiniferus*).

II. SUMMARY OF THE STATUS OF CHECKLISTS AND OTHER ACTIVITIES

Preparation, maintenance and publication of vertebrate checklists continue in collaboration with the Herpetologists' League and Smithsonian Institution, Washington, D.C. Significant contributions were provided by the World Conservation Monitoring Centre, Cambridge. Preparation, maintenance and publication of plant checklists were carried out in collaboration with the Royal Botanic Gardens, Kew.

Activities and progress achieved in preparation of checklists by the Nomenclature Committee (animals and plants subcommittees) are summarized below:

<u>Snakes</u> – Compilation of the snake checklist continues by Jonathan Campbell. An editorial office has been established under a co-operative agreement with the Smithsonian Institution to facilitate review and finalization of the checklist. Thirty family units have been identified. Annex 2 summarizes progress on each family. The large number of taxa prompted the decision to organize the checklist for publication in three volumes. The first volume will cover 10 families of primitive snakes; the second, seven groups of non-venomous snakes; the third, three families of venomous snakes.

Draft checklists have been completed for the following 10 families: Acrochordidae, Aniliidae, Atractaspidae, Anomalepididae, Tropidophiidae, Leptotyphlopidae, Typhlopidae, Cylindrophiinae, Uropeltinae and Xenodontine colubrids. Eighty per cent of the content of the first volume has been compiled; 40% of the total checklist is now under review.

The compiler is focusing on the families required to complete the first volume (Boidae, Bolyeriidae, Loxocemidae and Xenopeltidae).

<u>Amphibians</u> – Amphibian Species of the World is out of print. The checklist is being revised and updated under the supervision of Darrel Frost. It will be published in two volumes: the first covering salamanders and caecilians; the second, frogs and toads. Revision of about 80% of the content of the first volume has been completed. An annex will be included in each volume cross-referencing changes of taxonomic names and higher taxonomic relationships in comparison with the 1985 edition.

<u>Lizards</u> – A committee has been formed and meetings held to discuss the format, timetable, and funding for a lizard checklist. Dr Aaron Bauer (Villanova University) has agreed to serve as compiler. A proposal is being written to fund preparation of the lizard checklist. It will be submitted to the US National Science Foundation this year. It is expected, with full funding, that it will require three years to prepare and publish the checklist.

<u>Turtles</u> – Dr John Iverson (Earlham College) has agreed to serve as compiler of a revised checklist of turtles and tortoises. Dr Iverson has prepared two earlier checklists and is anxious to collaborate on preparation of a standard reference for CITES.

<u>Crocodilians/Tuataras</u> – Dr James Clark (American Museum of Natural History) and Mr Andrew Ross (Smithsonian Institution) have agreed to serve as cocompilers of a revised checklist for crocodilians and tuataras. Two meetings have been held. The format and a time schedule for completing the revised checklist is being prepared.

<u>Mammals</u> – The first edition of the checklist is no longer available. A second edition of the mammal checklist was published in early 1993. The revised volume is recommended for adoption by the Conference of the Parties as the Standard Reference to Mammalian Nomenclature (see below). A meeting of the Nomenclature Committee (Brussels, September 1993) felt that a cross-reference showing changes in taxonomic names and higher taxonomic relationships was needed to facilitate Parties' use of the volume.

The first printing of the second edition is nearly exhausted. A second printing is scheduled for this year. The Smithsonian Institution Press has offered a 30% discount on the price for the book for a limited number of copies for sale to CITES Management and Scientific Authorities. Co-ordination of the sales is to be provided by the CITES Secretariat.

<u>Cactaceae</u> – The first edition of the cacti checklist was published by the Royal Botanic Gardens, Kew, following the eighth meeting of the Conference of the Parties. It serves as the standard reference for cactus nomenclature. A supplement to the checklist will be required (based on information provided by users) for the ninth meeting of the Conference of the Parties. A second edition will be published in 1996, subject to available funding.

Orchids - Following the format recommended by the Plants Committee, the Royal Botanic Gardens, Kew, has commenced work on the orchid checklist under a Memorandum of Understanding with the CITES Secretariat. A standard reference is being prepared to selected orchid genera in trade. Completed and verified checklists of the following taxa will be completed for the ninth meeting of the Conference of the Parties: Cattleya, Cypripedium, Laelia, Paphiopedilum, Phalaenopsis, Phragmipedium, Pleione and Sophronitis. The checklist is being compiled on a computer using the ALICE system – a database manager developed by botanists to manage checklist information. Checklist records are provided from contributors, checked by in-house experts at the Royal Botanic Gardens, Kew, entered in the system, then sent to an international panel of orchid specialists for validation.

Other activities pursued since the eighth meeting of the Conference of the Parties include:

<u>Enquiries</u> – Several enquiries have been received requesting an opinion on the nomenclatorial status of animal species in trade. Examples of such enquiries include:

- review of the status of *Tauraco fischeri*;
- what name to use to discriminate the domestic from the wild yak;
- review of the status of the name of Severtzovi's sheep;
- review of the nomenclatorial status of *Lissemys* punctata;
- review of Caprinae sheets for the Identification Manual.

Enquiries are normally prompted because a Management Authority questions the validity of information a permit or the identity of specimens in a shipment. Often such enquiries are associated with seizures or confiscations of shipments and resulting legal actions.

The Nomenclature Committee only recommends which name to use for a population based on the intent of the Parties at the time the taxon was listed. Most often this is determined by knowing the geographic limits of the taxon covered by the original listing and tracking subsequent published changes in the names as they refer to all, or part, of that taxon. The Committee can not determine with certainty which taxon a particular specimen should be assigned to because it has to rely on information provided by the Management Authority, which may not be able to verify the precise site from which the specimen was taken. Specimens are not available for inspection.

Further, determination of the taxonomic limits of the species in several groups, such as the genus *Ovis*, have been based on traditional morphological descriptions. Proper determination of the species limits in such groups will require research employing recently developed techniques, e.g. cladistics, analysis of DNA.

The plants subcommittee has noted that *Ancistrocactus tobuschii* is listed in Appendix I. In the checklist adopted as the standard reference it is treated as a synonym of *Sclerocactus brevihamatus* which is included under the Appendix-II listing of the Cactaceae. Dr Allan Zimmerman has indicated that *Ancistrocactus tobuschii* is best treated as an infraspecific taxon of *Sclerocactus brevihamatus*, but no formal name combination at the infraspecific level exists at present. Steps are being taken to determine whether a name combination under the appropriate genus and species could be published before the meeting of the Parties to allow discrimination of the entity that is listed in Appendix I.

The plants subcommittee has also noted the need for a simple definition of 'succulent Euphorbias' with line drawings of typical species and of atypical 'marginally succulent' taxa, which are more controversial. The subcommittee recommends that, for the time being, any *Euphorbia* included in the following publications is succulent:

Lexicon of Succulent Plants/Das Sukkulentenlexikon. 1977. Jacobsen, H. English edition. Blandford Press, Dorset, U.K. 1970 and 1981. German editions. Gustav Fischer Verlag, Jena, Germany.

List of names of succulent plants other than cacti published 1950-1992. 1994. Eggli, U. and N. Taylor, editors. Royal Botanic Gardens, Kew, U.K.

Repertorium Plantarum Succulentarum, vol. 44. 1993. Eggli, U. and N. Taylor, comps. Royal Botanic Gardens, Kew, U.K.

In the short term, adoption of these references will serve as a legal basis for defining the term "succulent Euphorbia'. In the long term, it will be desirable for the plants subcommittee to draft a working definition, compile a checklist of the taxa to be included under the definition and prepare illustrations.

<u>Checklist co-ordinator</u> – Under a co-operative agreement with the Smithsonian Institution (Washington, D.C.) a checklist co-ordinator has been retained to assist development and updating of the vertebrate checklists. CITES provides funding under the agreement to employ the co-ordinator. Office space, computer facilities, and full-time technical support are provided by the Smithsonian Institution. The checklist co-ordinator verifies literature citations, facilitates review of sections of the checklist as they are prepared by the compilers and summarizes review comments for the compilers.

<u>Funding for lizard checklist</u> – A proposal is being prepared for submission to the US National Science Foundation to cover the cost of preparing the lizard checklist.

<u>Conversion of files to a database</u> – The checklist coordinator recommends that checklists not be converted from WordPerfect files to a database until checklists in preparation are completed and published. Investment of time and funds to convert the files to a database format at this time would delay progress in preparing the checklists. All new checklists (e.g. lizards) will be done in a database. <u>Discriminating domestic forms of taxa listed in the</u> <u>appendices</u> – There are several taxa included in the appendices of which domesticated forms exist. In several cases the Parties have chosen to discriminate between the wild form and the domesticated form by applying a name that differs from the name cited in the standard nomenclatural reference for the protected form:

Equus przewalskii (= E. caballus) Bos gaurus (= B. frontalis) Bos mutus (= B. grunniens) Ovis orientalis ophion (= O. musimon ophion or O. aries ophion)

Recommendations

Adoption of the Nomenclature Committee report by the Conference of the Parties serves as endorsement of the following recommendations:

- Adopt Mammal species of the world: A taxonomic and geographic reference. Second edition (1993, D. E. Wilson and D. M. Reeder; Smithsonian Institution Press) as the standard reference to mammalian nomenclature. The present standard reference is no longer available.
- 2. Accept the offer of the Smithsonian Institution Press to provide a 30% discount for purchases of the second edition of Mammals Species of the World.
- 3. Where there are domesticated forms of listed taxa that are subject to international trade that are not discriminated according to the adopted standard nomenclatural reference, the Parties are urged to adopt a policy to apply a name recommended by the Nomenclature Committee to the wild form.
- 4. Add a note to the Appendix-I listing of *Bos mutus*: 'excluding domestic forms and their products'.
- 5. To consider any species of *Euphorbia* included in the following publications to be succulent and to be included in Appendix II:
 - Lexicon of Succulent Plants/Das Sukkulentenlexikon. 1977. Jacobsen, H. English edition. Blandford Press, Dorset, U.K. 1970 and 1981. German editions. Gustav Fischer Verlag, Jena, Germany.

Supplemented by:

List of names of succulent plants other than cacti published 1950-1992. 1994. Eggli, U. and N. Taylor, editors. Royal Botanic Gardens, Kew, U.K.

For name published from 1993 onwards:

Repetorium Plantarum Succulentarum, vol. 44. 1993. Eggli, U. and N. Taylor, comps. Royal Botanic Gardens, Kew, U.K.

III. PROPOSED WORKPLAN

- a) Continue development and management of vertebrate checklists, as follows:
 -) assuming that the first volume of the snake checklist is published, complete second and third volumes of snake species of the world in collaboration with the Herpetologists' League and the Smithsonian Institution, Washington, D.C. Facilitate publication and distribution to the Parties when the volumes are completed;
 - ii) update and maintain the computer files on amphibian species in collaboration with the Herpetologists' League. Facilitate publication and distribution to the Parties when the volumes are completed;
 - iii) revise and publish turtle and crocodile checklists in collaboration with the Herpetologists' League and the Smithsonian Institution, Washington, D.C.;
 - iv) subject to available external funding, start preparation of a checklist of lizard species of the world in collaboration with the Herpetologists' League;
 - v) in collaboration with the Secretariat, ensure that the cross-reference showing changes in the nomenclature of listed taxa between the first and second editions of *Mammal Species of the World* is made available to the Scientific and Management Authorities; and
 - vi) when vertebrate checklists are completed (or revised) convert word-processing files to a database manager.
- b) Continue development and maintenance of plant checklists, as follows:
 - update and maintain the checklist on Cactaceae; publish a second edition in collaboration with the Royal Botanic Gardens, Kew;
 - ii) update and maintain the database on Orchidaceae;
 - iii) publish checklists of Cattleya, Cypripedium, Laelia, Paphiopedilum, Phalaenopsis, Phragmipedium, Pleione and Sophronitis in collaboration with the Royal Botanic Gardens, Kew;
 - iv) prepare checklists for additional key genera of Orchidaceae, based on the recommendations of the Review of Significant Trade in Species of Plants Included in Appendix II of CITES and in consultation with the Plants Committee and the Secretariat; and
 - v) identify other key groups for preparation of checklists, e.g. succulents.

IV. PROPOSED BUDGET (1995-1997) (USD)

	1995	1996	1997
Animals subcommittee			
Contracted services:			
Vertebrate checklists	30,000	30,000	30,000
AppI nomenclature review	7,500	7,500	7,500

	1995	1996	1997
Travel	4,000	4,000	4,000
Communications	500	500	500
Subtotal	42,000	42,000	42,000
Plants subcommittee			
Contracted services:			
Orchidaceae checklists*	40,000	40,000	40,000
Cactaceae and succulents	20,000	20,000	20,000
Subtotal	60,000	60,000	60,000
TOTAL	102,000	102,000	102,000
Authorized under Resolution Conf. 8.19.			

Doc. 9.16 (Rev.) Annex 1

Preliminary nomenclatural and taxonomic review of taxa listed in CITES Appendix I prior to 1977

Tim Inskipp

This document aims to provide basic information on the nomenclature and taxonomy of taxa listed in CITES Appendix I prior to the adoption of the Berne Criteria. These taxa were accepted for listing without any written documentation of their suitability for inclusion in Appendix I. In general, it is not possible to determine the taxonomic concept of the taxa held by the proponent countries at the time of inclusion in Appendix I. In fact the views of proponents are not really relevant because inclusion of taxa was based on the decisions made by the majority of countries present at the inaugural meeting (and by a twothirds majority of Parties at the first meeting of the Conference of the Parties). Perhaps the only satisfactory solution to this problem will be to adopt CITES recommended nomenclatural sources (where available) to define the taxonomic limits of the listed taxa. As detailed below, this proposal, if adopted, would allow decisions to be made relating to species in the following groups: Mammalia,

Aves and Amphibia. However, species in the remaining groups (Reptilia, Pisces, Mollusca and Flora) and all listed subspecies will require individual annotation to define their taxonomic limits unless the Parties adopt recommended nomenclatural sources for these groups. Some of these annotations are provided in the notes and comments below, but this is a time-consuming process that requires input from experts on the various groups of taxa for completion. This preliminary report is submitted in order to provide a basis for carrying out this review.

Only taxa for which there has been no change in the protection status under CITES since 1977 are listed below.

= listed in Appendix I with effect from 4 February 1977; all other taxa listed below were in Appendix I when CITES entered into force.

		Proponent	Notes
	FAUNA	·	
CHORDATA			
Mammalia			1
MARSUPIALIA			2
Dasyuridae	Sminthopsis longicaudata Spencer 1909	AU	3
	Sminthopsis psammophila Spencer 1895	AU	4
Thylacinidae	Thylacinus cynocephalus (Harris 1808)	AU	5
Peramelidae	Chaeropus ecaudatus (Ogilby 1838)	AU	6
	Perameles bougainville (Quoy & Gaimard 1824)	AU	7
Thylacomyidae	Macrotis lagotis (Reid 1837)	AU	8
	Macrotis leucura (Thomas 1887)	AU	9
Vombatidae	Lasiorhinus krefftii (Owen 1873)	AU	10
Macropodidae	Caloprymnus campestris (Gould 1843)	AU	11
	Lagorchestes hirsutus (Gould 1844)	AU	12
	Lagostrophus fasciatus (Péron & Lesueur 1807)	AU	13

		Proponent	Notes
	Onychogalea fraenata (Gould 1841)	AU	14
	Onychogalea lunata (Gould 1841)	AU	15
PRIMATES			
Lemuridae	#Lemuridae spp.	MG	16
Cheirogaleidae	Cheirogaleidae spp.	?	17
Indriidae	Indriidae spp.	?	18
Daubentoniidae	Daubentonia madagascariensis (Gmelin 1788)	?	19
Callithricidae	#Callithrix jacchus aurita (É. Geoffroy 1812: 119)	GB	20
	#Callithrix jacchus flaviceps (Thomas 1903: 240)	GB	21
	Leontopithecus spp.	BR	22
Callithricidae	#Saguinus bicolor (Spix 1823)	GB	23
	#Saguinus leucopus (Günther 1877)	GB	24
	#Saguinus oedipus (Linnaeus 1758)	GB	25
Callimiconidae	Callimico goeldii (Thomas 1904)	BR	26
Cebidae	Alouatta palliata (Gray 1849)	MX	27
	Ateles geoffroyi frontatus (J.E. Gray 1842: 256)	?	28
	Ateles geoffroyi panamensis (Kellogg & Goldman 1944: 40-41)	?	29
	Brachyteles arachnoides (É. Geoffroy 1806)	?	30
	Cacajao spp.	BR, PE	31
	Chiropotes albinasus (I. Geoffroy & Deville 1848)	?	32
	Saimiri oerstedii (Reinhardt 1873)	?	33
Cercopithecidae	Cercocebus galeritus galeritus (Peters 1879: 829-832)	?	34
	Colobus pennantii kirki (Gray 1868: 180-182)	?	35
	Colobus rufomitratus Peters 1879	?	36
	Macaca silenus (Linnaeus 1758)	?	37
	Nasalis spp.	ID	38
	Presbytis entellus (Dufresne 1797)	?	39
	Presbytis geei Khajuria 1956	IN	40
	Presbytis pileata (Blyth 1843)	?	41
	#Presbytis potenziani (Bonaparte 1856)	GB	42
Hylobatidae	Hylobatidae spp.	ID, IN	43
Pongidae	#Pongidae spp.	GB	44
EDENTATA			45
Dasypodidae	Priodontes maximus (Kerr 1792)	AR	46
PHOLIDOTA			
Manidae	Manis temminckii Smuts 1832	ZA	47
LAGOMORPHA			
Leporidae	Caprolagus hispidus (Pearson 1839)	IN	48
	Romerolagus diazi (Ferrari-Pérez 1893)	MX	49
RODENTIA		1	1
Sciuridae	Cynomys mexicanus Merriam 1892	MX	50
Muridae	Leporillus conditor (Sturt 1848)	AU	51
	Pseudomys praeconis Thomas 1910	AU	52

		Proponent	Notes
	Xeromys myoides Thomas 1889	AU	53
	Zyzomys pedunculatus (Waite 1896)	AU	54
Chinchillidae	#Chinchilla spp.	СН	55
CETACEA			•
Eschrichtidae	Eschrichtius robustus (Lilljeborg 1861)		56
Balaenopteridae	Balaenoptera musculus (Linnaeus 1758)		57
	Megaptera novaeangliae (Borowski 1781)		58
Balaenidae	Balaena spp.		59
CARNIVORA			
Canidae	#Speothos venaticus (Lund 1842)	PE	60
Ursidae	#Tremarctos ornatus (F.G. Cuvier 1825)	PE	61
Mustelidae	Enhydra lutris nereis (Merriam 1904: 159)	MX	62
	Lutra felina (Molina 1782)	AR	63
Mustelidae	Lutra longicaudis (Olfers 1818)	AR, BR, MX	64
	#Lutra lutra (Linnaeus 1758)	СН	65
	Lutra provocax Thomas 1908	AR	66
	Mustela nigripes (Audubon & Bachman 1851)	CA	67
	Pteronura brasiliensis (Gmelin 1788)	AR, BR	68
Viverridae	Prionodon pardicolor Hodgson 1842	IN	69
Hyaenidae	Hyaena brunnea Thünberg 1820	?	70
Felidae	Acinonyx jubatus (Schreber 1775)	AF, CM, SU	71
	Felis bengalensis bengalensis Kerr 1792: 151	IN	72
	Felis concolor coryi Bangs 1899: 15	?	73
	Felis concolor costaricensis Merriam 1901: 596	CR	74
	Felis concolor cougar Kerr 1792: 151	CA	75
	Felis jacobita Cornalia 1865	AR	76
	Felis marmorata Martin 1837	IN	77
	Felis nigripes Burchell 1824	ZA	78
	Felis planiceps Vigors & Horsfield 1827	ТН	79
	Felis temmincki Vigors & Horsfield 1827	IN	80
	Neofelis nebulosa (Griffith 1821)	GB, ID, IN, TH	81
	#Panthera leo persica Meyer 1826: ?	GB	82
	Panthera onca (Linnaeus 1758)	AR, MX	83
	Panthera pardus (Linnaeus 1758)	SU	84
	Panthera uncia (Schreber 1775)	SU	85
PINNIPEDIA			
Phocidae	Monachus spp.	MX, SU	86
PROBOSCIDEA	1	I	_1
Elephantidae	Elephas maximus Linnaeus 1758	?	87
SIRENIA		I	1
Dugongidae	Dugong dugon** (Müller 1776)	?	88
Trichechidae	Trichechus inunguis (Natterer 1883)	BR	89
	Trichechus manatus Linnaeus 1758	MX	90

		Proponent	Notes
PERISSODACTYLA	Т		
Equidae	Equus hemionus hemionus Pallas 1775: 394	MN	91
	Equus hemionus khur Lesson 1827: 347	IN	92
	Equus przewalskii Poliakov 1801: pls. 1, 2.	MN	93
	Equus zebra zebra Linnaeus 1758: 74	ZA	94
Tapiridae	Tapiridae spp.**	IN, TH	95
Rhinocerotidae	#Rhinocerotidae spp.	GB	96
ARTIODACTYLA			
Suidae	Babyrousa babyrussa (Linnaeus 1758)	ID	97
	Sus salvanius (Hodgson 1847)	IN	98
Camelidae	Vicugna vicugna** (Molina 1782)	AR, GB, PE	99
Cervidae	Blastocerus dichotomus (Illiger 1815)	AR	100
	#Cervus dama mesopotamicus Brooke 1875: 264	IR	101
	Cervus duvauceli G. Cuvier 1823	IN	102
	Cervus elaphus hanglu Wagner 1844: 352 (footnote)	IN	103
	Cervus eldi McClelland 1842	IN, TH	104
	Cervus porcinus annamiticus (Heude 1888: 50)	TH	105
	Cervus porcinus calamianensis (Heude 1888: ?)	PH	106
	Cervus porcinus kuhli Müller 1840: 45	ID	107
	Hippocamelus spp.	AR	108
	Ozotoceros bezoarticus (Linnaeus 1758)	AR	109
	Pudu pudu (Molina 1782)	AR	110
Bovidae	Bison bison athabascae Rhoads 1898: 498	?	111
	Bos gaurus H. Smith 1827: 399.	?	112
	Bos mutus Przevalski 1883: 191.	?	113
	Bos sauveli Urbain 1937	?	114
	Bubalus depressicornis (H. Smith 1827)	?	115
	Bubalus mindorensis (Heude 1888)	?	116
	Bubalus quarlesi (Ouwens 1910)	?	117
	Capricornis sumatraensis (Bechstein 1799)	?	118
	Hippotragus niger variani (Thomas 1916: 300)	PT	119
	Nemorhaedus goral (Hardwicke 1825)	ID,KP,SU,TH	120
	Oryx leucoryx (Pallas 1777)	?	121
	Ovis ammon hodgsoni Blyth 1841: 65	IN	122
	Ovis orientalis ophion Blyth 1841: 73	US	123
	Ovis vignei Blyth 1841	IN	124
	Rupicapra rupicapra ornata Neumann 1899: 347	IT	125
Aves			126
TINAMIFORMES		1	
Tinamidae	Tinamus solitarius (Vieillot 1819: 105)	BR	127
PODICIPEDIFORMES			
Podicipedidae	Podilymbus gigas Griscom 1929: 5	GT	128

		Proponent	Notes
PROCELLARIIFORME	S		
Diomedeidae	Diomedea albatrus Pallas 1769: 28	JP	129
PELECANIFORMES			
Sulidae	Papasula abbotti (Ridgway 1893: 599)	?	130
Fregatidae	Fregata andrewsi Mathews 1914: 120	?	131
CICONIIFORMES			•
Ciconiidae	Ciconia boyciana Swinhoe 1873: 513	JP, KP	132
Threskiornithidae	Nipponia nippon (Temminck 1835: 551)	KP	133
ANSERIFORMES			•
Anatidae	Anas aucklandica nesiotis (Fleming 1935: 1)	?	134
	Anas laysanensis Rothschild 1892: 17	US	135
	Anas oustaleti Salvadori 1894: 1	?	136
	Branta canadensis leucopareia (Brandt 1836: 37)	JP	137
	Branta sandvicensis (Vigors 1834: 4)	US	138
	Cairina scutulata (S. Müller 1842: 159)	TH	139
	Rhodonessa caryophyllacea (Latham 1790: 866)	IN	140
FALCONIFORMES			•
Cathartidae	Gymnogyps californianus (Shaw 1798: [1], pl. 301)	MX	141
	Vultur gryphus Linnaeus 1758: 86	AR	142
Accipitridae	Aquila adalberti Brehm 1861: 55		143
	#Aquila heliaca Savigny 1809: 82	СН	144
	#Chondrohierax uncinatus wilsonii (Cassin 1847: 199)	GB	145
	#Haliaeetus albicilla (Linnaeus 1758: 89)	СН	146
	#Haliaeetus leucocephalus (Linnaeus 1766: 124)	СН	147
	Harpia harpyja (Linnaeus 1758: 86)	BR, CR, MX	148
	Pithecophaga jefferyi Ogilvie-Grant 1897: 17	?	149
Falconidae	#Falco araea (Oberholser 1917: 76)	GB	150
	#Falco newtoni aldabranus Grote 1928: 78-79	GB	151
	Falco pelegrinoides Temminck 1829: 81, pl. 479		152
	#Falco peregrinus Tunstall 1771: 1	CH, GB	153
	#Falco punctatus Temminck 1821 8: pl. 45	GB	154
GALLIFORMES			
Megapodiidae	Macrocephalon maleo S. Müller 1846: 116	ID	155
Cracidae	Crax blumenbachii Spix 1825: 50	BR, US	156
	<i>Mitu mitu</i> Linnaeus 1766: 270	BR	157
	Oreophasis derbianus (G.R. Gray 1844: [485], col. pl. 121)	US	158
	Pipile jacutinga (Spix 1825: 53)	BR	159
	Pipile pipile (Jacquin 1784: 26)	US	160
Phasianidae	Colinus virginianus ridgwayi Brewster 1885: 199	?	161
	Crossoptilon crossoptilon (Hodgson 1838: 864)	IN	162
	Crossoptilon harmani Elwes 1881: 399-401		163
	Crossoptilon mantchuricum Swinhoe 1863: 287	?	164
	Lophophorus spp.	IN	165

		Proponent	Notes
	Lophura edwardsi (Oustalet 1896: 316)	?	166
	Lophura imperialis (Delacour & Jabouille 1924: 29)	?	167
	Lophura swinhoii (Gould 1863: 284)	?	168
	Polyplectron emphanum Temminck 1831 88: pl. 540	?	169
	Syrmaticus ellioti (Swinhoe 1872: 550)	?	170
	Syrmaticus humiae (Hume 1881: 461)	?	171
	Syrmaticus mikado (Ogilvie-Grant 1906: 122)	?	172
	Tetraogallus caspius (Gmelin 1784: 67)	SU	173
	Tetraogallus tibetanus Gould 1854: 47	SU	174
	Tragopan blythii (Jerdon 1870: 60)	?	175
	Tragopan caboti (Gould 1857: 161)	?	176
	Tragopan melanocephalus (G.R. Gray 1829: 29)	?	177
	Tympanuchus cupido attwateri Bendire 1893: 425	US	178
GRUIFORMES			•
Gruidae	Grus americana (Linnaeus 1758: 142)	CA, US	179
	Grus canadensis nesiotes (Bangs & Zappey 1905: 193-194)	US	180
	Grus canadensis pulla Aldrich 1972: 63-70	US	181
	Grus japonensis P.L.S. Müller 1776: 110	JP, KP, MN, US	182
	Grus leucogeranus Pallas 1773: 714	AF, MN, US	183
	Grus monacha Temminck 1835: 555	MN	184
	Grus nigricollis Przevalski 1876: 135	US	185
	Grus vipio Pallas 1811: 111	MN, US	186
Rallidae	Gallirallus sylvestris (Sclater 1869: 472)	?	187
Rhynochetidae	Rhynochetus jubata Verreaux & Des Murs 1860: 440	?	188
Otididae	Eupodotis bengalensis (Gmelin 1789: 724)	IN	189
CHARADRIIFORMES			1
Scolopacidae	Numenius borealis (Forster 1772: 343)	CA	190
	Tringa guttifer (Nordmann 1835: 17)	JP	191
Laridae	Larus relictus (Lönnberg 1931: 2, 5)	MN	192
COLUMBIFORMES			
Columbidae	Ducula mindorensis (Whitehead 1896: 189-190)	?	193
PSITTACIFORMES			
Psittacidae	Amazona guildingii (Vigors 1837: 80)	?	194
	Amazona imperialis Richmond 1899: 186	?	195
	Amazona leucocephala (Linnaeus 1758: 100)	?	196
	Amazona pretrei (Temminck 1830: 492)	BR	197
	Amazona rhodocorytha (Salvadori 1890: 370)	BR	198
	Amazona versicolor (Müller 1776: 78)	?	199
	Amazona vinacea (Kuhl 1820: 77)	BR	200
	Amazona vittata (Boddaert 1783: 49)	?	201
	Aratinga guarouba (Gmelin 1788: 320)	BR	202
	Cyanopsitta spixii (Wagler 1832: 675)	BR	203
	Cyanoramphus auriceps forbesi Rothschild 1893: 529	?	204

		Proponent	Notes
	Cyanoramphus cookii (G.R. Gray 1859: 13)	?	205
	Cyanoramphus novaezelandiae (Sparrman 1787 no. xxviii)	?	206
	Neophema chrysogaster (Latham 1790: 97)	AU	207
	Pezoporus occidentalis (Gould 1861: 100)	AU	208
	#Pezoporus wallicus (Kerr 1792: 581)	AU	209
	Pionopsitta pileata (Scopoli 1769: 32)	BR	210
	Psephotus chrysopterygius Gould 1858: 220	AU	211
	Psephotus dissimilis Collett 1898: 356	AU	212
	Psephotus pulcherrimus (Gould 1845: 115)	AU	213
	Psittacula echo (Newton & Newton 1876: 284)	?	214
	Psittacus erithacus princeps Alexander 1909: 74	PT	215
	Pyrrhura cruentata (Wied 1820: 53, 72)	BR	216
	Strigops habroptilus G.R. Gray 1845: 427	?	217
STRIGIFORMES			
Tytonidae	#Tyto soumagnei (Milne-Edwards 1878: 1282, note 2)	GB	218
Strigidae	Mimizuku gurneyi (Tweeddale 1879: 940-941)	?	219
	#Ninox novaeseelandiae undulata (Latham 1801: xvii)	AU	220
	#Ninox squamipila natalis Lister 1889: 525	AU	221
APODIFORMES			
Trochilidae	Glaucis dohrnii (Bourcier & Mulsant 1852: 139)	BR	222
TROGONIFORMES			
Trogonidae	Pharomachrus mocinno de la Llave 1832: 48	GT, MX	223
CORACIIFORMES			
Bucerotidae	Buceros vigil (J. R. Forster 1781: 40)	TH	224
PICIFORMES			
Picidae	Campephilus principalis (Linnaeus 1758: 113)	MX	225
	Dryocopus javensis richardsi Tristram 1879: 386	KP	226
PASSERIFORMES			
Cotingidae	Cotinga maculata (P.L.S. Müller 1776: 147)	BR	227
	Xipholena atropurpurea (Wied 1820: 262)	BR	228
Pittidae	Pitta kochi Brüggemann 1876: 65	?	229
Atrichornithidae	Atrichornis clamosus (Gould 1844: pl. 34)	AU	230
Muscicapidae	Dasyornis broadbenti litoralis (Milligan 1902: 69)	AU	231
	Dasyornis longirostris Gould 1841: 170	AU	232
	Picathartes spp.	?	233
Zosteropidae	Zosterops albogularis Gould 1837: 75	?	234
Meliphagidae	Lichenostomus melanops cassidix (Gould 1867: pl. 39)	AU	235
Fringillidae	Carduelis cucullata Swainson 1820: pl. 7	US, VE	236
Sturnidae	Leucopsar rothschildi Stresemann 1912: 4	?	237
Reptilia	· ·		238
TESTUDINATA	1	I	1
Emydidae	Batagur baska (J.E. Gray 1831: 34)	?	239
	Geoclemys hamiltonii (J.E. Gray 1831: 21)	?	240

		Proponent	Notes
	Kachuga tecta tecta (J.E. Gray 1831: 23)	?	241
	Melanochelys tricarinata (Blyth 1856: 714)	?	242
	Morenia ocellata (Duméril & Bibron 1835: 239)	?	243
	Terrapene coahuila Schmidt & Owens 1944: 101	MX	244
Testudinidae	Geochelone elephantopus (Harlan 1827: 284)	?	245
	Geochelone radiata (Shaw 1802: 22)	?	246
	Geochelone yniphora (Vaillant 1885: 440)	?	247
	Psammobates geometricus (Linnaeus 1758: 199)	GB	248
Dermochelyidae	#Dermochelys coriacea (Vandelli 1761)	AU, GB	249
Trionychidae	Lissemys punctata punctata (Lacépède 1788: 171)	?	250
	Trionyx ater Webb & Legler 1960: 21	MX	251
	Trionyx gangeticus Cuvier 1825: 186, 203	?	252
	Trionyx hurum Gray 1831: 18	?	253
	Trionyx nigricans Anderson 1875: 284	?	254
Chelidae	Pseudemydura umbrina Siebenrock 1901: 249	AU	255
CROCODYLIA			
Alligatoridae	Alligator sinensis Fauvel 1879: 34	?	256
	Caiman crocodilus apaporiensis Medem 1955: 340	?	257
	Caiman latirostris (Daudin 1801: 417)	BR	258
	Melanosuchus niger (Spix 1825: 3)	?	259
Crocodylidae	Crocodylus intermedius Graves 1819: 344	?	260
	Crocodylus moreletii Duméril & Bibron 1851: 28	MX	261
	Crocodylus novaeguineae mindorensis Schmidt 1935: 68	?	262
	#Crocodylus palustris Lesson 1831: 121	СН	263
	Crocodylus rhombifer Cuvier 1807: 51	?	264
	Crocodylus siamensis Schneider 1801: 157	?	265
	#Osteolaemus tetraspis Cope 1861: 550	СН	266
	Tomistoma schlegelii (S. Müller 1838: 77)	?	267
Gavialidae	Gavialis gangeticus (Gmelin 1789: 1057)	?	268
RHYNCHOCEPHALIA			
Sphenodontidae	Sphenodon punctatus (Gray 1842: 72)	?	269
SAURIA			
Varanidae	Varanus bengalensis (Daudin 1802: 67)	IN	270
	Varanus flavescens (G.R. Gray 1827: 226)	IN	271
	Varanus griseus (Daudin 1803: 352)	?	272
	Varanus komodoensis Ouwens 1912: 1-3	?	273
SERPENTES		I	
Boidae	#Acrantophis spp.	GB, MG	274
	#Bolyeria multocarinata (Boie 1827: 513)	GB	275
	#Casarea dussumieri (Schlegel 1837: 396)	GB	276
	#Epicrates inornatus (Reinhardt 1843: 253)	СН	277
	Epicrates subflavus Stejneger 1901: 469-470	?	278

		Proponent	Notes
	Python molurus molurus (Linnaeus 1758: 225)	IN	279
	#Sanzinia madagascariensis (Duméril & Bibron 1844: 549-552)	GB, MG	280
Amphibia			281
CAUDATA			
Cryptobranchidae	Andrias spp.	?	282
ANURA			•
Bufonidae	Atelopus varius zeteki Dunn 1933: 71	US	283
	Bufo superciliaris Boulenger 1887	?	284
	Nectophrynoides spp.	?	285
Pisces			286
ACIPENSERIFORMES			•
Acipenseridae	Acipenser brevirostrum LeSueur 1818: 390	?	287
CYPRINIFORMES			•
Cyprinidae	Probarbus jullieni (Sauvage 1880: 228-233)	?	288
Catostomidae	Chasmistes cujus Cope 1883: 149	?	289
SILURIFORMES			
Schilbeidae	Pangasianodon gigas Chevey 1930: 536-542	?	290
PERCIFORMES			•
Sciaenidae	#Cynoscion macdonaldi Gilbert 1890: 64	US	291
MOLLUSCA			292
Bivalvia			•
UNIONOIDA			
Unionidae	Conradilla caelata (Conrad 1834: 338)	?	293
	Dromus dromas (Lea 1834: 70)	?	294
	Epioblasma curtisi (Utterback 1915: 190)	?	295
	Epioblasma florentina (Lea 1857: 83)	?	296
	Epioblasma sampsoni (Lea 1861: 392)	?	297
	Epioblasma sulcata perobliqua (Conrad 1837: 51)	?	298
	<i>Epioblasma torulosa gubernaculum</i> (Reeve 1865: pl. 28, species 146)	?	299
	Epioblasma torulosa torulosa (Rafinesque 1820: 314)	?	300
	Epioblasma turgidula (Lea 1858: 40)	?	301
	Epioblasma walkeri (Wilson & Clark 1914: 46)	?	302
	Fusconaia cuneolus (Lea 1840: 286)	?	303
	Fusconaia edgariana (Lea 1841: 31)	?	304
	Lampsilis higginsi (Lea 1857: 84)	?	305
	Lampsilis orbiculata orbiculata (Lea 1836: 25)	?	306
	Lampsilis satura (Lea 1852: 252)	?	307
	Lampsilis virescens (Lea 1858: 40)	?	308
	Plethobasus cicatricosus (Say 1829: 292)	?	309
	Plethobasus cooperianus (Lea 1834: 61)	?	310
	Pleurobema plenum (Lea 1840: 286)	?	311
	Potamilus capax (J. Green 1832: 290)	?	312

		Proponent	Notes
	Quadrula intermedia (Conrad 1836: 63)	?	313
	Quadrula sparsa (Lea 1841: 82)	?	314
	Toxolasma cylindrella (Lea 1868: 144)	?	315
	Unio nickliniana Lea 1834: 28	MX	316
	Unio tampicoensis tecomatensis Lea 1841: 30	MX	317
	Villosa trabalis (Conrad 1834: 27)	?	318
	FLORA		319
Cupressaceae	Pilgerodendron uviferum (D. Don ex Lamb 1837: 116) Florin 1930	AR	320
Liliaceae	Aloe albida (Stapf 1933: t. 9300) Reynolds	?	321
	Aloe pillansii L. Guthrie 1928: 15	?	322
	Aloe polyphylla Schönl. ex Pillans 1934: 267	?	323
	Aloe thorncroftii Pole Evans 1917: 709	?	324
	Aloe vossii Reynolds 1936: 65	?	325
Orchidaceae	Cattleya skinneri Bateman 1843 t. 13	?	326
	Cattleya trianae Linden & Rchb.f. 1864: 67	?	327
	Didiciea cunninghamii (King & Prain ex King & Pantling 1896: 119)	?	328
	Laelia jongheana Rchb.f. 1872: 158	?	329
	Laelia lobata (Lindley 1848: 403) Veitch 1848	?	330
	Lycaste skinneri (Batem. ex Lindl.) Lindl. var. alba Cockerell ?:?	?	331
	Peristeria elata Hooker 1831: t. 3116	?	332
Pinaceae	Abies guatemalensis Rehder 1939: 285	?	333
Podocarpaceae	Podocarpus parlatorei Pilger in Engl. 1903: 86	AR	334
Proteaceae	Orothamnus zeyheri Pappe ex Hooker 1848: t. 4357	?	335
	Protea odorata Thunberg ?: 187	?	336
Rubiaceae	Balmea stormiae Martinez 1942: 438	?	337
Stangeriaceae	#Stangeria eriopus (Kunze 1836: 506) Nash 1909	GB	338
Zamiaceae	#Encephalartos spp.	GB	339
	Microcycas calocoma (Miq. 1851-52: 141) A. DC.	?	340

Notes and comments

Note that not all taxa listed below have written comments appended.

Mammalia

- Species nomenclature follows Honacki et al. (1982) except for Equus przewalskii (= E. caballus), Bos gaurus (= B. frontalis), Bos mutus (= B. grunniens) and Ovis orientalis ophion (= O. musimon ophion or O. aries ophion). References for original descriptions are given only for subspecies and the abovementioned species.
- MARSUPIALIA. Wilson and Reeder (1993) have divided this order into 7 new orders (the constituent families relevant to this document are included in parentheses): Didelphimorphia, Paucituberculata, Microbiotheria, Dasyuromorphia (Dasyuridae, Thylacinidae), Peramelemorphia (Peramelidae), Notoryctemorphia and Diprotodontia (Vombatidae, Potoroidae, Macropodidae).
- 3. Sminthopsis longicaudata.
- 4. Sminthopsis psammophila.

- 5. Thylacinus cyanocephalus.
- 6. Chaeropus ecaudatus.
- 7. Perameles bougainville.
- 8. *Macrotis lagotis*. Wilson and Reeder (1993) include the family Thylacomyidae in Peramelidae.
- 9. Macrotis leucura.
- Lasiorhinus krefftii. Originally listed as Lasiorhinus gillespiei but gillespiei (De Vis 1900) and barnardi Longman 1939 are now treated as synonyms of krefftii. Wilson and Reeder (1993) cautioned that `populations historically known as barnardi may not be referable to krefftii.
- 11. *Caloprymnus campestris*. Wilson and Reeder (1993) include this species in a separate family, Potoroidae.
- 12. Lagorchestes hirsutus.
- 13. Lagostrophus fasciatus.

- 14. Onychogalea fraenata. Wilson and Reeder (1993) refer to the argument put forward by McAllan and Bruce (1989) that the original publication of this name was by Gould in *The Athenaeum* 670: 685 [published 29 August 1840] as [*Macropus*] frenatus, rather than *Proc. Zool. Soc. London* 1840: 92 [published 1841] where it was spelt [*Macropus*] fraenatus; however, Wilson and Reeder did not follow the former spelling but gave no reasons for not doing so.
- 15. Onychogalea lunata.
- 16. Lemuridae. Originally listed as *Allocebus* spp., *Cheirogaleus* spp., *Hapalemur* spp., *Lemur* spp., *Lepilemur* spp, *Microcebus* spp. and *Phaner* spp. Wilson and Reeder (1993) include *Lepilemur* in a separate family Megaladapidae.
- 17. Cheirogaleidae spp. Originally included in Lemuridae.
- Indriidae spp. Originally listed as Avahi spp., Indri spp. and Prophithecus [sic] spp. Wilson and Reeder (1993) use the spelling Indridae following Jenkins (1987).
- 19. *Daubentonia madagascariensis*. Wilson and Reeder (1993) note that *robusta* Lamberton 1934 may be a distinct species.
- 20. Callithrix jacchus aurita. Originally listed as Callithrix aurita and treated as a separate species by Wilson and Reeder (1993) who, additionally, use the spelling Callitrichidae for the family name. See Napier (1976) for subspecies limits of *C. jacchus*.
- 21. Callithrix jacchus flaviceps. Originally listed as Callithrix flaviceps and treated as a separate species by Wilson and Reeder (1993). See Napier (1976) for subspecies limits of *C. jacchus*.
- 22. Leontopithecus spp. Honacki et al. (1982) listed only one species in this genus, treating *L. chrysomelas* and *L. chrysopygus* as conspecific with *L. rosalia*. In cases such as this, where a genus or higher taxon in the CITES appendices is composed of only one species, the standard practice is to name the species rather than use `spp.' However, many authors, including Wilson and Reeder (1993), treat *chrysomelas* and *chrysopygus* as separate species and, also, *L. caissara* Lorini and Persson 1990 has recently been described.
- 23. Saguinus bicolor.
- 24. Saguinus leucopus.
- 25. Saguinus oedipus. The Appendix-I entry includes S. geoffroyi as a synonym, but Wilson and Reeder (1993) treat the latter as a separate species.
- 26. *Callimico goeldii*. Originally the family Callimiconidae was included in Callithricidae and this treatment has been adopted by Wilson and Reeder (1993).
- 27. Alouatta palliata. Originally listed as Alouatta palliata (villosa). It is likely that the parentheses were originally used in the sense of inclusion cf. Lutra longicaudis (platensis/annectens) rather than being equivalent to, cf. the 1973 listing Priodontes giganteus (=maximus) or Oryx (tao) dammah (i.e. with the synonym prefixing the accepted name). A. villosa (J. E. Gray 1845) was considered indeterminable by Lawrence (1933) in a revision of the group. She used the next available name, palliata, and recognised seven subspecies, among them two new ones, A. palliata pigra from northern Guatemala and A. palliata luctuosa from Belize. However, Hall & Kelson (1959) reverted to the use of

villosa for the group, on the basis of priority, and they recognised an eighth subspecies, *A. v. villosa* from central and eastern Guatemala. Hill (1962) split *palliata* into two species and, because he also regarded *villosa* as indeterminable, he named his Guatemalan species *A. pigra*, with *luctuosa* as a synonym. Napier (1976) accepted the validity of the name *villosa* for the black howler of Guatemala and southern Mexico, but both Honacki *et al.* (1982) and Wilson & Reeder (1993) regarded it as a *nomen dubium* and used the name *pigra* for this form. If it is accepted that *villosa* was originally listed in an inclusive sense, then *Alouatta pigra* (of which *villosa* is a synonym) should be listed on Appendix I as well as *A. palliata*.

- 28. Ateles geoffroyi frontatus. Kellogg and Goldman (1944), in a detailed review of the genus, defined frontatus as `Similar in pattern of coloration, that is, the normal restriction of black areas to top of head and irregularly to outer surface of limbs, to geoffroyi of southeastern Nicaragua, but body darker, the ground color of upperparts near buckthorn brown or Mars brown and of underparts honey yellow to tawny, instead of light buff. Differs from panamensis of Panama in brownish instead of deep ferruginous general body color. Differs from vellerosus of Veracruz in the restriction of black areas on anterior part of back and more yellowish tone of lumbar region.' Napier (1976) recognised eight subspecies of A. geoffroyi: azuerensis Bole 1937, frontatus (Gray 1842), geoffroyi Kuhl 1820, grisescens Gray 1866, ornatus Gray 1870, pan Schlegel 1876, vellerosus Gray 1866 and yucatanensis Kellogg & Goldman 1944.
- 29. Ateles geoffroyi panamensis. Kellogg and Goldman (1944) described this subspecies as `Very similar to ornatus of the Caribbean slope of Costa Rica, but reddish tone more intense, the back less obscured by overlying dusky hairs; inner side of upper arm pinkish cinnamon to ferruginous'. Napier (1976) synonymised A. g. panamensis with ornatus Gray 1870 and pointed out that the type specimen of ornatus was not examined by Kellogg & Goldman (1944). The latter authors' comparison with specimens currently assigned to ornatus from the Caribbean slope of Costa Rica is invalid.
- 30. Brachyteles arachnoides.
- Cacajao spp. Includes two species: C. calvus and C. melanocephalus (Honacki et al. 1982; Wilson and Reeder 1993).
- 32. Chiropotes albinasus.
- 33. Saimiri oerstedii. Hershkovitz (1972) considered oerstedii a subspecies of *sciureus* but later (1984) regarded it as distinct species again.
- 34. Cercocebus galeritus galeritus. C. galeritus is currently monotypic since Honacki et al. (1982) and Wilson and Reeder (1993) contra Napier (1981) treat C. agilis as a separate species, and C. galeritus "sanjei" Homewood and Rodgers (1981) has not been formally accepted as a valid taxon because the original description was based on live animals only. The current trinomial should be maintained in Appendix I, pending clarification of "sanjei".
- 35. Colobus pennantii kirki. Originally listed as Colobus badius kirkii. Gray's (1868) original spelling of the name was Colobus kirkii and this should, therefore, be followed [see Art. 33(d) of ICZN (1985)]. Napier (1985) and Lee et al. (1988) treat this as a species, the latter including it in the genus Procolobus. Wilson and Reeder (1993) list this as Procolobus pennantii

kirki. Nine subspecies of *C. pennantii* are generally recognised (Napier 1985); *kirkii* is slightly smaller than other subspecies, it has characteristic long white brow fringes, and is geographically isolated on Zanzibar and the adjacent coast of Tanzania.

- 36. Colobus rufomitratus. Originally listed as Colobus badius rufomitratus. Wilson and Reeder (1993) and Lee *et al.* (1988) include it in the genus *Procolobus*; the latter authors consider several subspecies of *C. pennantii* to be referable to this species.
- 37. Macaca silenus.
- Nasalis spp. Originally listed as Nasalis larvatus and Simias concolor. The change to Nasalis spp. increases the potential protection coverage in Appendix I. The listing should be revised to Nasalis concolor and Nasalis larvatus.
- 39. *Presbytis entellus*. Corbet and Hill (1992) and Wilson and Reeder (1993) treat this as *Semnopithecus entellus* following Groves (1989).
- 40. *Presbytis geei.* Corbet and Hill (1992) treat this as *Semnopithecus geei*, whereas Wilson and Reeder (1993) treat it as *Trachypithecus geei.* Although both Honacki *et al.* (1982) and Wilson and Reeder (1993) attribute the species name to Khajuria 1956, Corbet and Hill (1992) continue to claim that it was `inadvertently, but validly, described by Gee (1956)'. However, this claim was thoroughly refuted by Biswas (1967).
- 41. *Presbytis pileata.* Wilson and Reeder (1993) treat this as *Trachypithecus pileatus* following Groves (1989), whereas Corbet and Hill (1992) treat it as *Semnopithecus pileatus* (and do not recognise the genus *Trachypithecus*) referring to the close relationship between *entellus* and other species.
- 42. Presbytis potenziani.
- Hylobatidae spp. Originally listed as Hylobates spp. and Symphalangus syndactylus. Includes 9 species: Hylobates agilis, H. concolor, H. hoolock, H. klossii, H. lar, H. moloch, H. muelleri, H. pileatus, H. syndactylus (Honacki et al. 1992). Wilson and Reeder (1993) and Corbet and Hill (1992) recognise two additional species: H. gabriellae Thomas 1909 and H. leucogenys Ogilby 1840, both separated from H. concolor.
- 44. Pongidae spp. Wilson and Reeder (1993) and Corbet and Hill (1992) include this family in the Hominidae.
- 45. EDENTATA. Wilson and Reeder (1993) list this order as XENARTHRA.
- 46. Priodontes maximus. Originally listed as Priodontes giganteus (= maximus).
- 47. Manis temminckii.
- 48. Caprolagus hispidus.
- 49. Romerolagus diazi.
- 50. Cynomys mexicanus.
- 51. Leporillus conditor.
- 52. Pseudomys praeconis.
- 53. Xeromys myoides.
- 54. Zyzomys pedunculatus.
- 55. *Chinchilla* spp. Includes 2 species: *C. brevicaudata* and *C. lanigera* (Honacki *et al.* 1982; Wilson and Reeder 1993).

- 56. *Eschrichtius robustus*. Includes synonym *E. glaucus* Cope 1868.
- 57. Balaenoptera musculus.
- 58. Megaptera novaeangliae.
- 59. Balaena spp. Originally listed as Balaena mysticetus and Eubalaena spp. The change to Balaena spp. increases the potential coverage in Appendix I. The listing should be revised to Balaena glacialis and Balaena mysticetus. Wilson and Reeder (1993) maintain Eubalaena as a separate genus and also recognise *E. australis* as a separate species.
- 60. Speothos venaticus.
- 61. Tremarctos ornatus.
- 62. Enhydra lutris nereis. Barabash-Nikiforov (1947) recognised three subspecies of *E. lutris: lutris, gracilis* and nereis. However, Kenyon (1969) and Roest (1973) felt that it was not possible to distinguish racially distinct populations of the species. Davis and Lidicker (1975) criticised Roest's interpretations and presented cogent arguments for recognising the subspecies nereis. Wilson *et al.* (1991) reviewed geographical variation in the species; they confirmed the distinctness of nereis (based mainly on skull morphometrics, synonymised gracilis with nominate lutris and described a new subspecies, kenyoni, the original range of which extended from the Aleutian Islands to Oregon (USA).
- 63. *Lutra felina*. Wilson and Reeder (1993) treat this in the genus *Lontra*.
- 64. Lutra longicaudis. Originally listed as Lutra longicaudis (platensis/annectens) but this was revised to Lutra longicaudis with the annotation `Includes synonyms Lutra annectens, Lutra enudris, Lutra incarum and Lutra platensis'. Wilson and Reeder (1993) treat this in the genus Lontra.
- 65. Lutra lutra.
- 66. *Lutra provocax.* Wilson and Reeder (1993) treat this in the genus *Lontra.*
- 67. *Mustela nigripes*. Wilson and Reeder (1993) quoted references suggesting that *M. nigripes* may be conspecific with *M. eversmannii* Lesson 1827.
- 68. Pteronura brasiliensis.
- 69. Prionodon pardicolor.
- 70. *Hyaena brunnea.* Wilson and Reeder (1993) treat this as *Parahyaena brunnea.*
- 71. Acinonyx jubatus.
- 72. Felis bengalensis bengalensis. There has never been a comprehensive review of geographic variation in this species. It is not possible to define the limits of the nominate subspecies because the characters used in the infraspecific taxonomy of this species are not clear cut and the validity of several subspecies is in doubt. In order to simplify enforcement problems relating to this species, either the listing of F. b. bengalensis on Appendix I should be replaced by the populations of the relevant range States (which would require an amendment proposal because F. b. horsfieldi also occurs in India), or F. b. bengalensis should be transferred to Appendix II. Wilson and Reeder (1993) and Corbet and Hill (1992) treat this as Prionailurus bengalensis bengalensis.
- 73. *Felis concolor coryi.* Hall (1981) provides information on the geographical delimitation of all North and

Central American races of *F. concolor*. Wilson and Reeder (1993) treat this as *Puma concolor coryi*.

- 74. Felis concolor costaricensis. Hall (1981) provides information on the geographical delimitation of all North and Central American races of *F. concolor. F. c. costaricensis* meets *mayensis* Nelson and Goldman 1929 to the north and probably extends south into Colombia where there are disjunct populations of *bangsi* Merriam 1901 and *soderstromii* Lönnberg 1913 (Currier 1983). Wilson and Reeder (1993) treat this as *Puma concolor costaricensis*.
- 75. *Felis concolor cougar*. Kerr's (1792) original spelling of the name was *Felis couguar*. Wilson and Reeder (1993) treat this as *Puma concolor couguar*.
- 76. Felis jacobita. Wilson and Reeder (1993) treat this as Oreailurus jacobita.
- 77. Felis marmorata. Wilson and Reeder (1993) and Corbet and Hill (1992) treat this as Pardofelis marmorata.
- 78. Felis nigripes.
- 79. *Felis planiceps*. Wilson and Reeder (1993) and Corbet and Hill (1992) treat this as *Prionailurus planiceps*.
- 80. *Felis temmincki.* Wilson and Reeder (1993) and Corbet and Hill (1992) treat this as *Catopuma temminckii.*
- 81. Neofelis nebulosa.
- 82. Panthera leo persica. This subspecies is now confined to India, disjunct from all African populations.
- 83. Panthera onca.
- 84. Panthera pardus.
- 85. *Panthera uncia*. Wilson and Reeder (1993) treat this as *Uncia uncia*.
- Monachus spp. Includes 3 species: M. monachus, M. schauinslandi and M. tropicalis (Honacki et al. 1982; Wilson and Reeder 1993). Both works include the order PINNIPEDIA in the CARNIVORA.
- 87. Elephas maximus.
- 88. Dugong dugon.
- 89. Trichechus inunguis.
- 90. Trichechus manatus.
- 91. *Equus hemionus hemionus*. Groves (1974) gives the basic distinguishing characters of all the relevant subspecies and Clark (1986) provides further characters for some forms.
- 92. Equus hemionus khur. Honacki et al. (1982) and Wilson and Reeder (1993) treated khur as a subspecies of *E. onager* Boddaert 1785. However, the CITES appendices treat *E. onager* and *E. kiang* as conspecific with *E. hemionus*.
- 93. *Equus przewalskii.* Honacki *et al.* (1982) and Wilson and Reeder (1993) treat this as a subspecies of *E. caballus* Linnaeus 1758.
- 94. Equus zebra zebra. Groves (1974) gives the basic distinguishing characters of *E. z. zebra* and *E. z. hartmannae*.
- 95. Tapiridae spp. Includes 4 species: *Tapirus bairdii, T. indicus, T. pinchaque* and *T. terrestris* (Honacki *et al.* 1982; Wilson and Reeder 1993).
- 96. Rhinocerotidae spp. Includes 5 species: Ceratotherium simum, Dicerorhinus sumatrensis,

Diceros bicornis, Rhinoceros sondaicus and R. unicornis (Honacki et al. 1982; Wilson and Reeder 1993).

- 97. Babyrousa babyrussa.
- 98. Sus salvanius.
- 99. Vicugna vicugna.
- 100. Blastocerus dichotomus.
- 101. Cervus dama mesopotamicus. Originally listed as Dama mesopotamica and this treatment has been adopted by Wilson and Reeder (1993), following Haltenorth (1959), Ferguson et al. (1985), Uerpmann (1987) and Harrison and Bates (1991). However, Feldhamer et al. (1988) treat it as one of two subspecies of Dama dama (Linnaeus 1758), giving minor differences from the nominate race in the antlers, skull and pelage.
- 102. *Cervus duvauceli*. Wilson and Reeder (1993) and Corbet and Hill (1992) spell this *Cervus duvaucelii*.
- 103. *Cervus elaphus hanglu.* Whitehead (1972) recognised 25 subspecies in the *C. elaphus* complex (although 13 of these he separated as *C. canadensis* Erxleben 1777). The most distinctive feature of *C. e. hanglu* is that the brow tine sprouts from the beam about 5 cm above the coronet, whereas in all other subspecies the brow tine sprouts immediately above the coronet.
- 104. *Cervus eldi.* This was originally described as *Cervus Eldii*, the spelling used by Wilson and Reeder (1993) and Corbet and Hill (1992). The entry should be changed to *Cervus eldii*.
- 105. Cervus porcinus annamiticus. Originally listed as Axis (Hyelaphus) porcinus annamiticus. Wilson and Reeder (1993) and Corbet and Hill (1992) treat this as Axis porcinus annamiticus. This subspecies is differs from the nominate race porcinus (Zimmermann 1780) which extends east to Myanmar, in its somewhat larger size and longer antlers.
- 106. *Cervus porcinus calamianensis*. Originally listed as *Axis (Hyelaphus) calamianensis*. Wilson and Reeder (1993) and Corbet and Hill (1992) treat this as *Axis calamianensis*.
- 107. Cervus porcinus kuhli. Originally listed as Axis (Hyelaphus) kuhli. Wilson and Reeder (1993) and Corbet and Hill (1992) treat this as Axis kuhlii. Müller's (1840) original spelling of the name was Cervus Kuhlii and this, therefore, should be followed.
- 108. *Hippocamelus* spp. Includes 2 species: *H. antisensis* and *H. bisulcus* (Honacki *et al.* 1982; Wilson and Reeder 1993).
- 109. Ozotoceros bezoarcticus.
- 110. Pudu pudu. Wilson and Reeder (1993) spell this Pudu puda.
- 111. Bison bison athabascae. B. b. athabascae and B. b. bison (Linnaeus 1758) now have small disjunct ranges, but originally they would have intergraded at the interfaces of their ranges. B. b. athabascae is generally larger than the nominate race but there are intergradations between the two. Differences in shape and pelage have been described but it is thought that these may be modified if larger samples are compared. Studies of chromosomes and blood characteristics have not resolved the issue (Meagher 1986). Two recent papers (van Zyll de Jong 1986 and Geist 1991a) provide alternative views.

- 112. Bos gaurus. Honacki et al. (1982), Corbet and Hill (1992) and Wilson and Reeder (1993) list this as B. frontalis Lambert, 1804, the name of the domesticated form. The former work states in the introduction (pp. 3-4) that `The scientific names employed for domesticated mammals, and for the wild ancestors of domesticated forms, are in all cases the earliest available valid names, as called for by the Code of the International Commission on Zoological Nomenclature. A different approach has been used by Corbet (1978) and Corbet and Hill (1980), in which names based on domesticated forms were not employed, and the first valid name based on a wild individual was used instead.' Doc. 4.16 [which reviewed the nomenclature of mammals listed in the appendices with regard to differences from that employed by Honacki et al. (1982)] stated that `B. gaurus was retained as a distinct species by Corbet and Hill, 1980...The consensus opinion of mammalogists...is that gaurus and frontalis are synonymous. However, the lack of any definitive taxonomic study leaves this conclusion in doubt. Therefore, the Committee recommends that the listing of Bos gaurus on Appendix I be retained for the time being'.
- 113. Bos mutus. Doc. 4.16 recommended that the listing in Appendix I of Bos (grunniens) mutus be replaced by Bos grunniens (= mutus), the name for the domesticated form and the name used for the species by Honacki et al. (1982) and Wilson and Reeder (1993). However, this recommendation was not followed, presumably using the argument employed above for B. gaurus. The principle of following Corbet and Hill (1980) in treating names of domesticated forms as separate entities to the wild equivalents was recently re-employed by CITES when the name Bubalus bubalis Linnaeus, 1758 (based on domesticated stock) in Appendix III was replaced by B. arnee (the first available name for a wild population).
- 114. Bos sauveli. Originally listed as Novibos (Bos) sauveli.
- 115. Bubalus depressicornis.
- 116. Bubalus mindorensis.
- 117. Bubalus quarlesi.
- 118. Capricornis sumatraensis. Wilson and Reeder (1993) and Corbet and Hill (1992) list this as Naemorhedus sumatraensis.
- 119. Hippotragus niger variani. This is an isolated form of the species, occurring only in central Angola (other populations occur eastwards from south-east Angola). H. n. variani has, on average, much larger (142-165 cm. in length) horns and a blacker face than individuals of other subspecies (87-154 cm. in length).
- 120. Nemorhaedus goral. Wilson and Reeder (1993) and Corbet and Hill (1992) treat this as 3 separate species: Naemorhedus baileyi, N. caudatus and N. goral (note the spelling of the generic name).
- 121. Oryx leucoryx.
- 122. Ovis ammon hodgsoni. Blyth's (1841: 65) original spelling was Ovis Hodgsonii; the entry should be changed to Ovis ammon hodgsonii. The subspecies of O. ammon were reviewed by Sopin (1982) and, more recently, by Geist (1991b), who recognised seven subspecies: ammon, darwini, hodgsoni (sic), jubata, karelini, nigrimontana and polii. Geist also noted that `Ever since Lydekker (1898)..hodgsoni and dalai-lamae..have been suspected to be, or

identified as, synonyms', and that specimens of *hodgsonii* have been collected close to the type locality of *dalailamae*.

- 123. Ovis orientalis ophion. Honacki et al. (1982) treat orientalis as a synonym of O. aries, but under O. musimon is the following comment: 'The status of the Cyprian wild sheep, ophion, is controversial. It was allocated to O. orientalis (= aries) by Ellerman and Morrison-Scott, 1951:418, and Gromov and Baranova, 1981:406, but provisionally assigned to musimon by Nadler et al., 1973, Z. Saugetierk., 38:119. Payne, 1968, Proc. Prehist. Soc., 34:368-384, considered musimon and ophion to be primitive feral stocks of domesticated O. aries.' Wilson and Reeder (1993) treat ophion, musimon and orientalis as synonyms of O. aries.
- 124. Ovis vignei.
- 125. Rupicapra rupicapra ornata. All subspecies of R. rupicapra (apart from tatrica Blahout, 1971), were covered in a review of the species by Couturier (1938). Wilson and Reeder (1993) treat R. pyrenaica as a separate species with ornata as a subspecies following Lovari (1985 and 1987). Nascetti et al. (1985), Masini and Lovari (1988) and Lovari and Locati (1991) provide further support for this treatment which is based on morphologic, biometric, electrophoretic and behavioural differences. Ornata is much larger with exceptionally long horns and a slimmer figure compared with pyrenaica (including parva) (Lovari and Scala 1980, Scala and Lovari 1984). R. rupicapra (sensu stricto) differs from R. pyrenaica in having a greater distance between the base of the horns; a longer, wider skull; a smaller angle between the horn cores and the frontal bones; and a winter coat pattern with only three small creamv-white spots.

Aves

- 126. Species nomenclature follows Sibley, C.G. and Monroe, B.L., Jr. (1990). References for original descriptions are given for all species and subspecies.
- 127. Tinamus solitarius.
- 128. Podilymbus gigas.
- 129. Diomedea albatrus.
- 130. Papasula abbotti. Formerly listed as Sula abbotti.
- 131. Fregata andrewsi.
- 132. *Ciconia boyciana*. Formerly listed as *Ciconia ciconia boyciana*.
- 133. Nipponia nippon.
- 134. Anas aucklandica nesiotis. See Delacour (1954) for details of the three subspecies of *A. aucklandica*.
- 135. Anas laysanensis. Often regarded as a subspecies of *A. platyrhynchos*.
- 136. Anas oustaleti is usually regarded as a stabilised hybrid swarm, involving *A. platyrhynchos* and *A. superciliosa*. It was highly variable with some individuals that looked like typical examples of one or the other parent species (Yamashina 1948). Sibley and Monroe (1990: 36) state that it `is probably a hybrid *A. platyrhynchos* x *A. superciliosa* (Johnsgard, in Peters 1979a: 470)'. In the absence of a more definitive statement of its taxonomic status it has been retained in CITES Appendix I.
- 137. Branta canadensis leucopareia. Johnsgard (1979) recognises eleven subspecies of *B. canadensis. B. c. leucopareia*, which breeds only on the Aleutian

Islands, is characterised by an abrupt forehead, white cheek patches separated by black feathers, and a narrow dark border beneath a white neck ring. It is difficult to distinguish from several other subspecies e.g. *B. c. minima* Ridgway 1885.

- 138. Branta sandvicensis.
- 139. Cairina scutulata.
- 140. Rhodonessa caryophyllacea.
- 141. Gymnogyps californianus.
- 142. Vultur gryphus.
- Aquila adalberti. Formerly treated as a subspecies of A. heliaca. Hiraldo et al. (1976) and Gonzalez et al. (1989) presented evidence that A. adalberti is a separate species, but K. H. Voous (pers. comm. to B. L. Monroe) expressed doubts.
- 144. Aquila heliaca.
- 145. Chondrohierax uncinatus wilsonii. Originally listed as Chondrohierax wilsonii. Stresemann and Amadon (1979) recognised three other subspecies of *C. uncinatus*: nominate *uncinatus* (Temminck 1822) which is widespread from western Mexico to Argentina, *aquilonis* Friedmann 1934 from eastern Mexico, and *mirus* Friedmann 1934 from Grenada. *C. u. wilsonii* differs from the other subspecies in having a heavier, yellow (rather than black) bill (Weick and Brown 1980).
- 146. Haliaeetus albicilla.
- 147. Haliaeetus leucocephalus.
- 148. Harpia harpyja.
- 149. Pithecophaga jefferyi.
- 150. Falco araea. New name for Falco gracilis Lesson 1830.
- 151. *Falco newtoni aldabranus*. This subspecies is not recognised by Stresemann and Amadon (1979), where *F. newtoni* is listed as monotypic. It is not distinguishable from the Malagasy population of the species, except by the slightly smaller average size (Benson and Penny 1971) and, therefore, the listing should be replaced by the population of the Seychelles of *Falco newtoni*.
- 152. *Falco pelegrinoides.* Formerly treated as conspecific with *F. peregrinus.*
- 153. Falco peregrinus. Originally listed as Falco peregrinus (pelegrinoides/babylonicus).
- 154. Falco punctatus.
- 155. Macrocephalon maleo.
- 156. Crax blumenbachii.
- 157. *Mitu mitu.* Originally listed as *Mitu mitu mitu* and then as *Crax mitu mitu. M. tuberosa* (Spix 1825) is treated as a separate species by Sibley and Monroe, following S. D. Strahl (pers. comm.), leaving *M. mitu* as monotypic.
- 158. Oreophasis derbianus.
- 159. *Pipile jacutinga*. Originally listed under this name but was changed to *Aburria jacutinga* following Morony *et al.* (1975).
- 160. *Pipile pipile*. Originally listed as *Pipile pipile pipile but* this was changed to *Aburria pipile pipile following* Morony *et al.* (1975). *P. cumanensis* (Jacquin 1784) was formerly treated as a subspecies of *Aburria pipile* but is treated as a separate species by Sibley and Monroe (1990), leaving *P. pipile* as monotypic.

- 161. Colinus virginianus ridgwayi. There are 18 subspecies of *C. virginianus* (Linnaeus 1758) which vary considerably in appearance. *C. v. ridgwayi* is isolated from other populations and the males are characterised by a cinnamon breast, black throat and a varying amount of white above the eye.
- 162. Crossoptilon crossoptilon.
- 163. *Crossoptilon harmani*. Formerly treated as a subspecies of *C. crossoptilon* but Sibley and Monroe (1990), following Ludlow (1951), treat it as a separate species.
- 164. Crossoptilon mantchuricum.
- 165. Lophophorus spp. Originally listed as Lophophorus impejanus, L. Ihuysii and L. sclateri. The change to Lophophorus spp. increases the potential protection coverage in Appendix I. The listing should be revised to the three original species.
- 166. Lophura edwardsi.
- 167. Lophura imperialis.
- 168. Lophura swinhoii.
- 169. Polyplectron emphanum.
- 170. Syrmaticus ellioti.
- 171. Syrmaticus humiae.
- 172. Syrmaticus mikado.
- 173. Tetraogallus caspius.
- 174. Tetraogallus tibetanus.
- 175. Tragopan blythii.
- 176. Tragopan caboti.
- 177. Tragopan melanocephalus.
- 178. Tympanuchus cupido attwateri. T. c. attwateri was always apparently an isolated population in historical times, separated from *pinnatus* (Brewster 1885) to the north-west and from the now extinct nominate *cupido* (Linnaeus 1758) in the north-east. T. c. attwateri is characterised by its pure white axillaries and the backs of the legs being unfeathered (Greenway 1967).
- 179. Grus americana.
- Grus canadensis nesiotes. Five subspecies of G. canadensis are recognised, the three that are in Appendix II are nominate canadensis (Linnaeus 1758), pratensis F. A. A. Meyer 1794 and tabida (Peters 1925).
- 181. Grus canadensis pulla.
- 182. Grus japonensis.
- 183. Grus leucogeranus.
- 184. Grus monacha.
- 185. Grus nigricollis.
- 186. Grus vipio.
- 187. Gallirallus sylvestris. Formerly listed as Tricholimnas sylvestris.
- 188. Rhynochetus jubata. In the original description of the species the name was spelt Rhynochetos jubatus. The latter spelling was used by Morony et al. (1975) and formerly in the CITES appendices. The variant spelling in Sibley and Monroe (1990) was an error, now corrected (Sibley and Monroe 1993). The listing should be revised to reflect the original spelling.

- 189. *Eupodotis bengalensis.* Originally listed under this name but then changed to *Houbaropsis bengalensis* following Morony *et al.* (1975).
- 190. Numenius borealis.
- 191. Tringa guttifer.
- 192. Larus relictus. Originally described as a subspecies of *L. melanocephalus* Temminck 1820, and then subsequently thought to be either an aberrant *L. brunnicephalus* Jerdon 1840 or a hybrid *L. brunnicephalus* x *ichthyaetus* Pallas 1773. It was confirmed as a valid species when breeding colonies were discovered in the 1960s (Duff *et al.* (1991).
- 193. Ducula mindorensis.
- 194. Amazona guildingii.
- 195. Amazona imperialis.
- 196. Amazona leucocephala.
- 197. *Amazona pretrei.* Originally listed as *Amazona pretrei* pretrei but the species has long been regarded as monotypic by most authors.
- 198. Amazona rhodocorytha. Formerly listed as Amazona dufresniana rhodocorytha but Sibley and Monroe (1990) point out that `the morphological differences and close approach without intergradation strongly suggest allospecies status'. Both are now treated as separate species.
- 199. Amazona versicolor.
- 200. Amazona vinacea.
- 201. Amazona vittata.
- 202. Aratinga guarouba.
- 203. Cyanopsitta spixii.
- 204. Cyanoramphus auriceps forbesi. Forshaw and Cooper (1989) recognise only one other subspecies of the species, the nominate auriceps (Kuhl 1820) on the main islands of New Zealand and the Auckland Islands. C. a. forbesi differs from auriceps in being slightly larger, the plumage is brighter with more yellowish underparts, the sides of the face are emerald green rather than concolourous with the upperparts, the red frontal band does not reach the eyes, and the outer webs of the flight feathers are greenish-blue rather than violet-blue.
- 205. Cyanoramphus cookii. Formerly treated as a subspecies of *C. novaezelandiae* but Sibley and Monroe (1990), following McAllan and Bruce (1988), treat it as a separate species.
- 206. Cyanoramphus novaezelandiae.
- 207. Neophema chrysogaster.
- 208. *Pezoporus occidentalis*. Formerly listed as *Geopsittacus occidentalis* and again listed as such by Sibley and Monroe (1993).
- 209. Pezoporus wallicus.
- 210. Pionopsitta pileata.
- 211. Psephotus chrysopterygius.
- 212. *Psephotus dissimilis.* Formerly treated as a subspecies of *P. chrysopterygius* but Sibley and Monroe (1990) treat it as a separate species, noting that `this very distinct isolated form differs in vocalizations'.
- 213. Psephotus pulcherrimus.
- 214. Psittacula echo. Originally listed as Psittacula krameri echo.

- 215. *Psittacus erithacus princeps*. Almost certainly an invalid taxon. This subspecies is reportedly larger and darker than the nominate subspecies, from the mainland, but Amadon (1953) pointed out that there is a cline of increasing size from west to east, the birds from the continent to the east being larger still. He also pointed out that colour was related to state of plumage.
- 216. Pyrrhura cruentata.
- Strigops habroptilus. Spelt Strigops hapbroptilus in Sibley & Monroe (1990) but corrected in Sibley and Monroe (1993).
- 218. Tyto soumagnei.
- 219. Mimizuku gurneyi. Formerly listed as Otus gurneyi.
- 220. Ninox novaeseelandiae undulata. Originally listed as Ninox novaeseelandiae royana Mathews 1912. A detailed description and measurements of this subspecies, of which probably only one female remains, is in Olsen et al. (1989). One male of the nominate race has recently been introduced from New Zealand. As defined by Sibley and Monroe (1990) and Mees (1964) there are 8 other subspecies of N. novaeseelandiae (Gmelin 1788): albaria Ramsay 1888 from Lord Howe Island; novaeseelandiae from New Zealand; cinnamomina Hartert 1906 from Babar, Indonesia; fusca (Vieillot 1817) from Timor, Indonesia; moae Mayr 1943 from Leti, Moa and Roma, Indonesia; plesseni Stresemann 1929 from Alor, Indonesia; remigialis Stresemann 1930 from the Kai Islands, Indonesia and pusilla Mayr & Rand 1935 from southern Papua New Guinea. Sibley and Monroe (1990), without any published justification, treat the closely related Australian populations as a separate species, N. boobook (Latham 1801), with the following subspecies (Schodde and Mason 1980): leucopsis (Gould 1838), lurida De Vis 1887 and ocellata (Bonaparte 1850). However, White and Bruce (1986) thought it quite likely that the single known specimen of remigialis `is only a vagrant ocellata from Australia', and that moae was hardly separable from ocellata, thus suggesting that the traditional treatment as one species is more appropriate. Mees (1964) gave the distinguishing features of all these populations, noting that undulata is separable both on size and plumage characters.
- 221. Ninox squamipila natalis. Olsen and Stokes (1989) suggest that this may be a separate species rather than a subspecies of squamipila (Bonaparte 1850), pointing out that it differs morphologically from other subspecies in having somewhat spotted rather than boldy barred underparts, pale brows, a slight dusky facial mask and yellow eyes. *N. squamipila* comprises four other subspecies, all from Indonesia: squamipila from Seram; forbesi P. L. Sclater 1883 from Tanimbar; hantu (Wallace 1863) from Buru and hypogramma (G. R. Gray 1860) from Bacan, Halmahera and Ternate.
- 222. *Glaucis dohrnii.* Originally listed as *Ramphodon dohrnii*, but changed to *Glaucis dohrnii* following Morony *et al.* (1975). Sibley and Monroe (1990) include it in the genus *Ramphodon* and the listing should be revised to reflect this.
- 223. *Pharomachrus mocinno*. Originally listed as *P. m. costaricensis* and *P. m. mocinno*. For use of *mocinno* instead of the emended *mocino* see Eisenmann (1959).
- 224. Buceros vigil. Formerly listed as Rhinoplax vigil.
- 225. Campephilus principalis.

- 226. Dryocopus javensis richardsi. Fourteen other subspecies of *D. javensis* are recognised; these are (chronologically): javensis (Horsfield 1821) from Java, Sumatra and Peninsular Malaysia; hodgsonii (Jerdon 1840) from India; feddeni (Blyth 1863) from Myanmar, Thailand and southern Viet Nam; pectoralis (Tweeddale 1878) from Bohol, Calicoan, Leyte, Panaon and Samar; hargitti (Sharpe 1884) from Palawan; suluensis (W. Blasius 1890) from the Sulu Archipelago; mindorensis (Steere 1890) from philippinensis (Steere 1890) Mindoro: from Guimaras, Masbate, Negros and Panay; *parvus* (Richmond 1902) from Simeuelue; *multilunatus* (McGregor 1907) from Basilan, Dinagat and Mindanao; confusus (Stresemann 1913) from southern Luzon; forresti Rothschild 1922 from China and northern Viet Nam; esthloterus Parkes 1971 from northern Luzon; and cebuensis Kennedy 1987 from Cebu. Stresemann (1913) reviewed and described all of these that had then been described, except for richardsi. Rothschild (1922) compared forresti with richardsi and feddeni and provided details of various plumage differences.
- 227. Cotinga maculata.
- 228. Xipholena atropurpurea.
- 229. Pitta kochi.
- 230. Atrichornis clamosus.
- 231. Dasyornis broadbenti litoralis. This bird has not been reliably recorded in its range in south-west Australia since 1906 and may be extinct (Blakers *et al.* 1984). Two other subspecies of *D. broadbenti* are recognised, both of which are isolated from *litoralis* between 138° and 144°E in south-east Australia: *broadbenti* (McCoy 1867) and *whitei* (Mathews 1912).
- 232. Dasyornis longirostris. Originally listed as Dasyornis brachypterus longirostris.
- 233. Picathartes spp. Originally listed as Picathartes gymnocephalus and Picathartes oreas. The change to Picathartes spp. increases the potential coverage in Appendix I. The listing should be revised to the two original species.
- 234. Zosterops albogularis.
- 235. Lichenostomus melanops cassidix. Formerly listed as Meliphaga cassidix. Three other subspecies of *L.* melanops are recognised: melanops (Latham 1801), gippslandicus (Wakefield 1958), meltoni (Mathews 1912).
- 236. Carduelis cucullata. Originally listed as Spinus cucullatus.
- 237. Leucopsar rothschildi.
- Reptilia.
- 238 References for original descriptions are given for all species and subspecies.
- 239. Batagur baska.
- 240. Geoclemys hamiltoniii.
- 241. Kachuga tecta tecta. King and Burke (1989) recognise two subspecies of K. tecta: K. t. tecta and K. t. circumdata. However, Moll (1987) treats circumdata as a race of K. tentoria with K. tecta monotypic and his distribution maps of tecta and tentoria indicate that tecta and circumdata are sympatric. This view is also shared by Das (1991) and, if accepted, the listing of Kachuga tecta tecta in Appendix I should be replaced by Kachuga tecta. However, Moll found K. tecta to be `relatively

common' in 10 sites visited in northern India and Khan (1982) judged it to be the most common turtle in Bangladesh. It may be more appropriate to consider the transfer of *K. tecta* to Appendix II.

- 242. Melanochelys tricarinata. Originally listed as Geoemyda (= Nicoria) tricarinata.
- 243. Morenia ocellata.
- 244. Terrapene coahuila.
- 245. *Geochelone elephantopus*. King and Burke (1989) use G *nigra* (Quoy and Gaimard 1824) for this species, and give references for this decision.
- 246. Geochelone radiata.
- 247. Geochelone yniphora.
- 248. Psammobates geometricus.
- 249. Dermochelys coriacea.
- 250. Lissemys punctata punctata. The provenance of the type specimen has been redetermined (see Webb 1980, 1982) which creates a doubt as to which population is covered by the Appendix-I listing. The Ten-Year-Review Central Committee agreed (CITES Doc. 4.37 Annex 2) that `it would be preferable to list Lissemys punctata in Appendix II than to simply transfer the nominal subspecies from Appendix I to Appendix II'. This has still not been addressed although correspondence from the CITES Management Authority of India tabled at the meeting of the Animals Committee in September 1993 indicated that a proposal may be prepared for the ninth meeting of the Conference of the Parties.
- 251. *Trionyx ater.* King and Burke (1989) quote Smith and Smith (1979) who showed that this taxon is a synonym of *Apalone spinifera* Le Sueur 1827 (= *Trionyx spiniferus*).
- 252. *Trionyx gangeticus*. King and Burke (1989) include this in the genus *Aspideretes*, following Meylan (1987).
- 253. *Trionyx hurum*. King and Burke (1989) include this in the genus *Aspideretes*, following Meylan (1987).
- 254. *Trionyx nigricans.* King and Burke (1989) include this in the genus *Aspideretes*, following Meylan (1987).
- 255. Pseudemydura umbrina.
- 256. Alligator sinensis.
- 257. *Caiman crocodilus apaporiensis*. Wermuth and Mertens (1977) define the ranges of all subspecies of *C. crocodilus*. The full extent of morphological variation in populations of *C. crocodilus* in the areas surrounding the Rio Apaporis is not known. Parts of hides and manufactured products are likely to be indistinguishable from those of other *C. crocodilus* taxa (Groombridge 1982).
- 258. Caiman latirostris.
- 259. Melanosuchus niger.
- 260. Crocodylus intermedius.
- 261. Crocodylus moreletii.
- 262. Crocodylus novaeguineae mindorensis. Usually treated as a full species Crocodylus mindorensis (see King and Burke, 1989; Groombridge, 1982; Wermuth and Mertens 1977).
- 263. Crocodylus palustris.
- 264. Crocodylus rhombifer.
- 265. Crocodylus siamensis.

- 266. Osteolaemus tetraspis.
- 267. Tomistoma schlegelii.
- 268. Gavialis gangeticus.
- 269. *Sphenodon punctatus.* The original listing was intended to cover all tuataras. One population has now been split as a separate species. The listing should be changed to *Sphenodon* spp. to accommodate this and potential future splits.
- 270. Varanus bengalensis. The latest revision of the genus is that by Mertens (1942).
- 271. *Varanus flavescens*. The latest revision of the genus is that by Mertens (1942).
- 272. Varanus griseus. The latest revision of the genus is that by Mertens (1942).
- 273. Varanus komodoensis. The latest revision of the genus is that by Mertens (1942).
- Acrantophis spp. Includes 2 species: A. dumerili Jan 1860, A. madagascariensis (Duméril & Bibron 1844). Stimson (1969) dealt with all species and subspecies of Boidae in a review.
- 275. *Bolyeria multocarinata.* See Stimson (1969). Campbell (in prep.) includes this genus in the family Bolyeridae rather than in the Boidae.
- 276. *Casarea dussumieri*. See Stimson (1969). In the original description the name was spelt *dussumiri* owing to a typographical error, but was corrected to *dussumieri* later in the same work. Campbell (in prep.) includes this genus in the family Bolyeridae rather than in the Boidae.
- 277. Epicrates inornatus. See Stimson (1969).
- 278. Epicrates subflavus. See Stimson (1969).
- 279. *Python molurus molurus*. Only one other subspecies of *P. molurus* is generally recognised: *bivittatus* Mell 1929, a darker form in which the upper labials are separated from the eye by suboculars, whereas in subspecies *molurus* the 6th and 7th upper labials are in contact with the eye. Stimson (1969) treats *Python molurus pimbura* as a synonym.
- 280. Sanzinia madagascariensis. See Stimson (1969).

Amphibia

- 281. Species nomenclature follows Frost (1985). References for original descriptions are given only for subspecies.
- 282. Andrias spp. Originally listed as Andrias (= Megalobatrachus) davidianus and Andrias (= Megalobatrachus) japonicus.
- 283. Atelopus varius zeteki. A. varius is a highly variable species and Savage (1972), in a review of the genus, failed to distinguish any subspecies, using `zeteki' to refer to the population from Valle de Anton. However, Kim et al. (1975) provided biochemical evidence suggesting that zeteki warrants species status.
- 284. Bufo superciliaris.
- Nectophrynoides spp. Includes 9 species: N. cryptus, N. liberiensis, N. malcolmi, N. minutus, N. occidentalis, N. osgoodi, N. tornieri and N. viviparus listed by Frost (1985), and N. wendyae Clarke 1988.

Pisces

- 286. References for original descriptions are given for all taxa.
- 287. Acipenser brevirostrum.
- 288. Probarbus jullieni.

- 289. Chasmistes cujus.
- 290. Pangasianodon gigas.
- 291. Cynoscion macdonaldi.

Mollusca

- 292. References for original descriptions are given for all taxa. Haas (1969) provided a complete taxonomic treatment of the superfamily Unionacea and Burch (1975) dealt with the North American Unionacean species in more detail. Johnson (1978) reviewed the genus *Epioblasma* (= *Plagiola*). Johnson (1980) discussed the taxonomy and nomenclature of 20 of the relevant taxa and monographed 5 of them. Turgeon *et al.* (1988) list all species and subspecies of Unionidae occurring in the United States but do not provide any references or synonymy.
- 293. Conradilla caelata. Haas (1969: 405) and Turgeon et al. (1988) treated this as a synonym of Lemiox rimosus (Rafinesque 1831). If this view is accepted a proposal will be required to delete it from Appendix I.
- 294. *Dromus dromas.* Haas (1969: 407) listed this as *Conchodromus dromas* (Lea) Haas 1930. *Dromus* Simpson 1900 is a homonym of *Dromus* Selby 1840. Johnson (1980) and Turgeon *et al.* (1988) maintain *Dromus dromas* without discussion but, clearly, the listing should be changed to *Conchodromus dromas*.
- 295. Epioblasma curtisi. Originally listed as Epioblasma (= Dysnomia) florentina curtisi. Described as Truncilla curtisii so the specific name should be spelt curtisii. Haas (1969: 489) listed this as Dysnomia florentina curtisii. Johnson (1978, 1980) treated this as a synonym of florentina, and considered that the correct name for the genus is Plagiola. Turgeon et al. (1988) list this as Epioblasma florentina curtisi. If Johnson's view is accepted an amendment proposal will be required to delete the taxon from the appendices. If not the name should be replaced by Plagiola florentina curtisii.
- 296. Epioblasma florentina. Originally listed as Epioblasma (= Dysnomia) florentina florentina. Haas (1969: 488) listed this as Dysnomia florentina florentina. Johnson (1978, 1980) listed this as Plagiola florentina. Turgeon et al. (1988) list this as Epioblasma florentina florentina. The listing should be replaced by either Plagiola florentina or Plagiola florentina florentina.
- 297. Epioblasma sampsoni. Originally listed as Epioblasma (= Dysnomia) sampsoni. Described as Unio sampsonii so the specific name should be spelt sampsonii. Haas (1969: 486) listed this as Dysnomia sampsonii. Johnson (1978, 1980) listed this as Plagiola sampsoni even though he noted Lea's original spelling. Turgeon *et al.* (1988) list this as Epioblasma sampsonii. The listing should be replaced by Plagiola sampsonii.
- 298. Epioblasma sulcata perobliqua. Originally listed as Epioblasma (= Dysnomia) sulcata perobliqua. Haas (1969: 480) treated this as a synonym of Dysnomia sulcata (Lea 1829). Johnson (1978) treated this as a synonym of Plagiola torulosa, pointing out that Conrad's figured type of Unio gibbosus var. perobliquus refers to torulosa. Turgeon et al. (1988) list this as Epioblasma obliquata perobliqua. If Johnson's (1978) view is accepted this listing becomes superfluous because it is a synonym of the listed E. t. torulosa. An amendment proposal will be required to delete the taxon from Appendix I.
- 299. Epioblasma torulosa gubernaculum. Originally listed as Epioblasma (= Dysnomia) torulosa gubernaculum.

Haas (1969: 486) treated this as a synonym of *Dysnomia torulosa rangiana* (Lea 1839). Johnson (1978) treated this as a synonym of *Plagiola torulosa* but Turgeon *et al.* (1988) maintain *Epioblasma torulosa gubernaculum*. Johnson's (1978) view is that *torulosa* is monotypic, showing only ecophenotypic variation; if this view is accepted then the listing of *gubernaculum* is superfluous. An amendment proposal will be required to delete this taxon from Appendix I.

- 300. Epioblasma torulosa torulosa. Originally listed as Epioblasma (= Dysnomia) torulosa torulosa. Haas (1969: 485) listed this as Dysnomia torulosa torulosa. Johnson (1978, 1980) listed this as Plagiola torulosa, treating it as monotypic because the species shows only ecophenotypic variation. However, Turgeon et al. (1988) continued to maintain Epioblasma torulosa torulosa. If Johnson's (1978) view is accepted the listing should be changed to Epioblasma torulosa or Plagiola torulosa.
- 301. Epioblasma turgidula. Originally listed as Epioblasma (= Dysnomia) turgidula. Haas (1969: 490) listed this as Dysnomia turgidula. Johnson (1978, 1980) listed this as Plagiola turgidula but Turgeon et al. (1988) maintain Epioblasma turgidula. The listing should be changed to Plagiola turgidula.
- 302. Epioblasma walkeri. Originally listed as Epioblasma (= Dysnomia) walkeri. Haas (1969: 488) listed this as Dysnomia walkeri. Johnson (1978) treated this as a synonym of Plagiola florentina pointing out that it was only an ecophenotypic variant. Turgeon et al. (1988) list this as Epioblasma florentina walkeri. An amendment proposal will be required to delete the taxon from Appendix I.
- 303. *Fusconaia cuneolus*. Haas (1969: 303) listed this as *Quadrula cuneolus* but Johnson (1980) and Turgeon *et al.* (1988) maintain *Fusconaia cuneolus*.
- 304. Fusconaia edgariana. Not in Burch (1975). Haas (1969: 305) treated this as a synonym of Quadrula cor (Conrad 1834), but Johnson (1980) followed Ortmann (1925) in maintaining it as a valid species. Turgeon et al. (1988) treated it as a synonym of Fusconaia cor.
- 305. *Lampsilis higginsi*. Described as *Unio Higginsii* so the specific name should be spelt *higginsii* (see Haas 1969: 461). Not in Burch (1975). The listing should be changed to *Lampsilis higginsii*.
- 306. Lampsilis orbiculata orbiculata. Margarita (Unio) orbiculatus Lea 1836 was based on Unio orbiculatus Hildreth 1828 but Lea incorrectly treated Unio abruptus Say 1831 as a synonym; Johnson (1980) showed that this was incorrect and that orbiculatus Hildreth is a synonym of Obovaria retusa (Lamarck 1819). Haas (1969: 461), Johnson (1980) and Turgeon et al. (1988) treated orbiculata (Lea 1836) as a synonym of Lampsilis abrupta (Say 1831). Clearly Lampsilis o. orbiculata can not be maintained in the CITES appendices because it is an incorrect name. If it is to be replaced by Lampsilis abrupta this will require an amendment proposal because it will increase the current protection level.
- 307. Lampsilis satura. Described as Unio satur so the specific name should be spelt satur. Haas (1969: 453) listed this as Lampsilis cardium satur but Johnson (1980) maintains L. satur and Turgeon et al. (1988) maintain L. satura. The listing should be changed to Lampsilis satur.

- 308. *Lampsilis virescens*. Haas (1969: 432) listed this as *Ligumia virescens* but Johnson (1980) and Turgeon *et al.* (1988) maintain *Lampsilis virescens*.
- 309. Plethobasus cicatricosus. Haas (1969: 250). Not in Burch (1975). Morrison (1969) mentions that this name is predated by Obovaria pachosteus Rafinesque 1820, but Rafinesque's names are not generally accepted as valid.
- 310. *Plethobasus cooperianus*. Haas (1969: 296) and Morrison (1969) treat this as a synonym of *Quadrula striata* (Rafinesque 1820) but Johnson (1980) and Turgeon *et al.* (1988) maintain *Plethobasus cooperianus*.
- 311. *Pleurobema plenum.* Haas (1969: 298) treated this as *Quadrula cordata plena* and Johnson (1980) treated it as a synonym of *Pleurobema cordatum*, but Turgeon *et al.* (1988) maintain *Pleurobema plenum.* Morrison (1969) mentions that this is a synonym of *Pleurobema premorsa* Rafinesque 1831. Either the listing should be changed to *Plerobema cordatum plenum* or an amendment proposal will be required to delete *Pleurobema plenum.*
- 312. Potamilus capax. Originally listed as Potamilus (= Proptera) capax. Haas (1969) does not list this taxon, perhaps an error of omission, and does not recognise the genus *Potamilus*, even as a synonym. Johnson (1980) explained that Potamilus Rafinesque 1818 was `overlooked from 1818 until its availability was indicated by Morrison (1969: 24). It was adopted by Valentine and Stansbery (1971: 25), and has since been promulgated by the latter. Proptera has been in general usage since 1900 (Simpson, 566). As no question of priority of authorship is involved, the resurrection of Potamilis [sic] appears nugatory. The most recent revision of the Rules (1974, Bull. Zool. Nomencl. 31 (2): 80) under Article 23, states: "A zoologist who considers that the application of the Law of Priority would in his judgment disturb stability or universality or cause confusion is to maintain the existing usage and must refer the case to the Commission for a decision under the plenary powers [Art. 79]." This author maintains existing usage, and suggests that those who would promulgate Potamilus seek the ruling.' Turgeon *et al.* (1988) maintain *Potamilus capax.* The listing should be changed to Proptera capax.
- 313. *Quadrula intermedia.* Haas (1969: 310) listed this as *Orthonymus intermedius* but Johnson (1980) and Turgeon *et al.* (1988) maintain *Quadrula intermedia.*
- 314. Quadrula sparsa. Haas (1969: 310) treated this as a synonym of Orthonymus metanevrus tuberosus (Lea 1840) and Johnson (1980) treated it as a synonym of Quadrula tuberosa, but Turgeon et al. (1988) maintain Quadrula sparsa. An amendment proposal will be required to delete the taxon from Appendix I.
- 315. Toxolasma cylindrella. Originally listed as Toxolasma (= Carunculina) cylindrella. Haas (1969: 430) treated this as a synonym of Carunculina glans (Lea 1834) but Johnson (1980) listed it as Carunculina cylindrella, and Turgeon *et al.* (1988) list it as Toxolasma cylindrellus.
- 316. Unio nickliniana. Originally listed as Unio (Megalonaias/?/) nickliniana. Haas (1969: 286) listed this as Megalonaias nickliniana. The listing should be replaced by Megalonaias nickliniana.

- 317. Unio tampicoensis tecomatensis. Originally listed as Unio (Lampsilis/?/) tampicoensis tecomatensis. Haas (1969: 462) listed this as Lampsilis (Cyrtonaias) tampicoensis tecomatensis, treating Cyrtonaias as a subgenus. Turgeon et al. (1988) include tampicoensis in the genus Cyrtonaias. The genus Unio, as defined by the recent family checklist (Haas 1969) has an exclusively Old World distribution. Unio tampicoensis tecomatensis in CITES Appendix I replaced by either should be Cyrtonaias tampicoensis tecomatensis Lampsilis or tampicoensis tecomatensis, depending on whether or not Cyrtonaias is regarded as a valid genus.
- 318. Villosa trabalis. Originally listed as Villosa (= Micromya) trabalis. Haas (1969: 475) listed this as Lampsilis trabalis but Johnson (1980) and Turgeon et al. (1988) maintain Villosa trabalis.

Flora

- 319. References for original descriptions are given for all taxa.
- 320. Pilgerodendron uviferum.
- 321. Aloe albida.
- 322. Aloe pillansii.
- 323. Aloe polyphylla.
- 324. Aloe thorncroftii.

- 325. Aloe vossii.
- 326. Cattleya skinneri.
- 327. Cattleya trianae.
- 328. Didiciea cunninghamii.
- 329. Laelia jongheana.
- 330. Laelia lobata.
- 331. Lycaste skinneri var. alba. Originally listed as Lycaste virginalis var. alba. However, Fowlie (1970) detailed the evidence to show that on grounds of priority the name for the species should be Lycaste skinneri (Batem. ex Lindl.) Lindl.
- 332. Peristeria elata.
- 333. Abies guatemalensis.
- 334. Podocarpus parlatorei.
- 335. Orothamnus zeyheri.
- 336. Protea odorata.
- 337. Balmea stormiae.
- 338. Stangeria eriopus. See Stevenson et al. (1990).
- 339. Encephalartos spp. See Stevenson et al. (1990).
- 340. Microcycas calocoma. See Stevenson et al. (1990).

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Note that a number of the references are incomplete. Details of many of these will be added as they become available.

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*Thomas, O. (1916) A new Sable Antelope from Angola. *Proc. Zool. Soc. London* 1916: 298-301. [*Hippotragus niger variani*]

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*Verreaux, J. and Des Murs, O. (1860) Description d'oiseaux nouveaux de la Nouvelle-Calédonie et indication des espèces déjà connues de ce pays. *Rev. Mag. Zool.* (2)12: 383-396, 431-443. [*Rhynochetos jubatus* (= *Rhynochetus jubata*)]

Vieillot, L. J. P. (1819) Nouveau dictionnaire d'histoire naturelle. (2)34: 105. [Cryptura solitaria (= Tinamus solitarius)]

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Wied-Neuwied, M. von (1820) *Reise Brasilien* 1. [*Psittacus cruentatus* (= *Pyrrhura cruentata*), *Ampelis atro-purpurea* (= *Xipholena atropurpurea*)]

Wilson, C. B. and Clark, H. W. (1914) The mussels of the Cumberland river and its tributaries. U.S. Bur. Fisheries Doc. 758: 52 pp. [Truncilla walkeri (= Epioblasma walkeri)]

*Wilson, D. E., Bogan, M. A., Brownell, R. L., Jr., Burdin, A. M. and Maminov, M. K. (1991) Geographic variation in Sea Otters, *Enhydris lutris. J. Mamm.* 72: 22-36.

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* = copies of the relevant parts of the references have been obtained or scrutinised.

Recommendations

Mammalia

- 1. Add a taxonomic note to the listing of *Callithrix jacchus aurita*: `Also referenced as *Callithrix aurita*' (note 20).
- 2. Add a taxonomic note to the listing of *Callithrix jacchus flaviceps*: `Also referenced as *Callithrix flaviceps*' (note 21).
- 3. Add Alouatta pigra to Appendix I (note 27).
- 4. Prepare a proposal to delete *Ateles geoffroyi* panamensis (note 29).
- 5. Change the spelling of *Colobus pennantii kirki* to *Colobus pennantii kirkii* and change taxonomic note to: Includes synonym *Colobus badius kirkii*, and also referenced as *Procolobus pennantii kirki* (note 35).
- 6. Change the taxonomic note to the listing of *Colobus rufomitratus* to: `Includes synonym *Colobus badius rufomitratus*, and also referenced as *Procolobus rufomitratus*' (note 36).
- 7. Change Nasalis spp. back to Nasalis concolor and Nasalis larvatus (note 38).
- 8. Add a taxonomic note to the listing of *Presbytis entellus*: `Also referenced as *Semnopithecus entellus*' (note 39).
- 9. Add a taxonomic note to the listing of *Presbytis geei*: `Also referenced as *Semnopithecus geei* and *Trachypithecus geei* (note 40).
- 10. Add a taxonomic note to the listing of *Presbytis pileatus*: `Also referenced as *Semnopithecus pileatus* and *Trachypithecus pileatus*' (note 41).
- 11. Change Balaena spp. back to Balaena glacialis and Balaena mysticetus (note 59).
- 12. Add a taxonomic note to the listing of *Lutra felina*: `Also referenced as *Lontra felina*' (note 63).

- 13. Change the taxonomic note to the listing of *Lutra longicaudis* to: `Includes synonyms *Lutra annectens*, *Lutra enudris*, *Lutra incarum* and *Lutra platensis*, and also referenced as *Lontra longicaudis*' (note 64).
- 14. Add a taxonomic note to the listing of *Lutra provocax*: `Also referenced as *Lontra provocax*' (note 66).
- 15. Add a taxonomic note to the listing of *Hyaena brunnea*: `Also referenced as *Parahyaena brunnea*' (note 70).
- 16. Prepare a proposal for *Felis bengalensis bengalensis*, either to replace the existing Appendix-I listing with the populations of the relevant range States, or transfer of the subspecies to Appendix II (note 72).
- Add a taxonomic note to the listing of *Felis concolor coryi*: Also referenced as *Puma concolor coryi* (note 73).
- 18. Add a taxonomic note to the listing of *Felis concolor* costaricensis: `Also referenced as *Puma concolor* costaricensis' (note 74).
- 19. Change the spelling of *Felis concolor cougar* to *Felis concolor couguar* and add a taxonomic note to the listing: `Also referenced as *Puma concolor couguar*' (note 75).
- 20. Add a taxonomic note to the listing of *Felis jacobita*: `Also referenced as *Oreailurus jacobita*' (note 76).
- 21. Add a taxonomic note to the listing of *Felis marmorata*: `Also referenced as *Pardofelis marmorata*' (note 77).
- 22. Add a taxonomic note to the listing of *Felis planiceps*: `Also referenced as *Prionailurus planiceps*' (note 79).
- 23. Add a taxonomic note to the listing of *Felis temminckii*. `Also referenced as *Catopuma temminckii* (note 80).
- 24. Add a taxonomic note to the listing of *Panthera uncia*: `Also referenced as *Uncia uncia*' (note 85).
- Add a taxonomic note to the listing of Equus przewalskii: Also referenced as Equus caballus przewalskii (note 93).
- 26. Change the taxonomic note to the listing of *Cervus dama* mesopotamicus to: `Also referenced as *Dama* mesopotamica' (note 101).
- 27. Change the spelling of *Cervus duvauceli* to *Cervus duvaucelii* (note 102).
- 28. Change the spelling of *Cervus eldi* to *Cervus eldii* (note 104).
- 29. Change the taxonomic note to the listing of *Cervus* porcinus calamianensis to: `Also referenced as *Axis* calamianensis' (note 106).
- 30. Change the spelling of *Cervus porcinus kuhli* to *Cervus porcinus kuhlii*, and change the taxonomic note to the listing to `Also referenced as *Axis kuhlii* (note 107).
- 31. Change the spelling of *Pudu pudu* to *Pudu puda* (note 110).
- 32. Add a taxonomic note to the listing of *Capricornis* sumatraensis: `Also referenced as *Naemorhedus* sumatraensis' (note 118).
- 33. Change the spelling of *Nemorhaedus goral* to *Naemorhedus goral* and add a taxonomic note to the listing: 'Includes synonyms *Naemorhedus baileyi* and *Naemorhedus caudatus*' (note 120).
- 34. Change the spelling of Ovis ammon hodgsoni to Ovis ammon hodgsonii (note 122).
- 35. Add a taxonomic note to the listing of *Rupicapra rupicapra* ornata: `Also referenced as *Rupicapra pyrenaica* ornata' (note 125).

Aves

- 36. Add a taxonomic note to the listing of *Anas oustaleti*: `Probably a hybrid between *Anas platyrhynchos* and *Anas superciliosa*' (note 136).
- 37. Add a taxonomic note to the listing of *Chondrohierax uncinatus wilsonii*: `Also referenced as *Chondrohierax wilsonii* (note 145).
- 38. Replace *Falco newtoni aldabranus* by the Seychelles population of *Falco newtoni* (note 151).
- 39. Change the taxonomic note to the listing of *Falco* pelegrinoides to: `Also referenced as *Falco* peregrinus pelegrinoides and *Falco* peregrinus babylonicus' (note 152).
- 40. Change Lophophorus spp. back to Lophophorus impejanus, Lophophorus Ihuysii and Lophophorus sclateri (note 165).
- 41. Change the spelling of *Rhynochetus jubata* to *Rhynochetos jubatus* (note 188).
- 42. Change *Pezoporus occidentalis* to *Geopsittacus occidentalis* (note 208).
- 43. Add a taxonomic note to the listing of *Psittacula echo*: `Also referenced as *Psittacula krameri echo*' (note 214).
- 44. Prepare a proposal to delete *Psittacus erithacus princeps* (note 215).
- 45. Change the listing of *Glaucis dohrnii* to *Ramphodon dohrnii* and change the taxonomic note to the listing to `Formerly included in the genus *Glaucis*' (note 222).
- 46. Add a taxonomic note to the listing of *Dasyornis longirostris*: `Also referenced as *Dasyornis brachypterus longirostris*' (note 232).
- 47. Change *Picathartes spp.* back to *Picathartes gymnocephalus* and *Picathartes oreas* (note 233).

Reptilia

- 48. Change Kachuga tecta tecta to Kachuga tecta (note 240).
- 49. Change Geochelone elephantopus to Geochelone nigra (note 244).
- 50. Prepare a proposal to transfer *Lissemys punctata punctata* from Appendix I to Appendix II and to include the species *Lissemys punctata* in Appendix II (note 249).
- 51. Prepare a proposal to delete Trionyx ater (note 250).
- 52. Add a taxonomic note to the listings of *Trionyx* gangeticus, *Trionyx hurum* and *Trionyx nigricans*: `Also referenced in genus *Aspideretes*' (notes 251-253).
- 53. Add a taxonomic note to the listing of *Crocodylus* novaeguineae mindorensis: `Also referenced as *Crocodylus mindorensis*' (note 261).
- 54. Change *Sphenodon punctatus* to *Sphenodon* spp. (note 268).
- 55. Add a taxonomic note to the listing of *Python molurus molurus*: `Includes synonym *Python molurus pimbura*' (note 278).

Mollusca

- 56. Prepare a proposal to delete *Conradilla caelata* (note 292).
- 57. Replace *Dromus dromas* by *Conchodromus dromas* (note 293).
- 58. Prepare a proposal to delete *Epioblasma curtisi* or replace by *Plagiola florentina curtisii* (note 294).
- 59. Replace *Epioblasma florentina* by either *Plagiola florentina florentina* (note 295).

- 60. Replace Epioblasma sampsoni by Plagiola sampsonii (note 296).
- 61. Prepare a proposal to delete *Epioblasma sulcata perobliqua* (note 297).
- 62. Prepare a proposal to delete *Epioblasma torulosa* gubernaculum (note 298).
- 63. Replace *Epioblasma torulosa torulosa* by *Plagiola torulosa* (note 299).
- 64. Replace *Epioblasma turgidula* by *Plagiola turgidula* (note 300).
- 65. Prepare a proposal to delete *Epioblasma walkeri* (note 301).
- 66. Change the spelling of *Lampsilis higginsi* to *Lampsilis higginsii* (note 304).
- 67. Prepare a proposal either to delete *Lampsilis orbiculata orbiculata* or to include *Lampsilis abrupta* in Appendix I (note 305).

- 68. Change the spelling of *Lampsilis satura* to *Lampsilis satur* (note 307).
- 69. Prepare a proposal to delete *Pleurobema plenum* (note 310).
- 70. Change Potamilus capax to Proptera capax (note 311).
- 71. Prepare a proposal to delete *Quadrula sparsa* (note 313).
- 72. Change *Toxolasma cylindrella* to *Carunculina cylindrella* (note 314).
- 73. Change Unio nickliniana to Megalonaias nickliniana (note 315).
- 74. Change Unio tampicoensis tecomatensis to either Cyrtonaias tampicoensis tecomatensis or Lampsilis tampicoensis tecomatensis (note 316).

Doc. 9.16 (Rev.) Annex 2

Snake Checklist Progress

2 June 1994

	Received	Edited	Reviewed	Returned	Completed
	VOLUM	E I - PRIMITIV	E SNAKES		
Family Units					
Aniliidae	Х	Х	IP	-	-
Anomalepididae	Х	Х	Х	IP	-
Boidae					
Boinae	IP	-	-	-	-
Calabariinae	IP	-	-	-	-
Erycinae	IP	-	-	-	-
Pythoninae	IP	-	-	-	-
Bolyeriidae	IP	-	-	-	-
Leptotyphlopidae	х	Х	х	IP	-
Loxocemidae	IP	-	-	-	-
Tropidophiidae	х	х	IP	-	-
Typhlopidae	Х	Х	х	IP	-
Uropeltidae					
Cylindrophiinae	Х	Х	IP	-	-
Uropeltinae	Х	Х	IP	-	-
Xenopeltidae	IP	-	-	-	-
	VOLUME II	- NON-VENON	IOUS SNAKES		
Acrochordidae	Х	Х	IP	-	-
Aparallactine colubrids	IP	-	-	-	-
Colubrine colubrids	IP	-	-	-	-
Homalopsine colubrids	-	-	-	-	-
Lycodontine colubrids	IP	-	-	-	-

	Received	Edited	Reviewed	Returned	Completed			
Natricine colubrids	Х	Х	х	IP	-			
Xenodontine colubrids	x	Х	IP	-	-			
VOLUME III - VENOMOUS SNAKES								
Atractaspidae	Х	Х	-	-	-			
Elapidae								
Acanthophiinae	-	-	-	-	-			
Elapinae	-	-	-	-	-			
Hydrophiinae	-	-	-	-	-			
Laticaudinae	-	-	-	-	-			
Micrurinae	-	-	-	-	-			
Viperidae								
Azemiopinae	-	-	-	-	-			
Crotalinae	-	-	-	-	-			
Viperinae	-	-	-	-	-			