

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

Fifth Meeting of the Conference of the Parties

Buenos Aires (Argentina), 22 April to 3 May 1985

Committee Reports and Recommendations

NOMENCLATURE COMMITTEE

This document contains the eleven following Annexes:

- Annex 1: Report of the Chairman of the Nomenclature Committee
- Annex 2: Conf. S.S.1.7: Recommendation of the special working session (Geneva, Switzerland)
- Annex 3: Doc. 2.22.1: Resolution adopted by the Parties in San José (Costa Rica)
- Annex 4: Plen. 3.4 (Rev.): Summary Report of the Plenary Session (New Delhi, India) endorsing further activities of Nomenclature Committee
- Annex 5: Conf. 4.23: Resolution of the Conference of the Parties concerning Nomenclature Committee activities adopted at Gaborone (Botswana)
- Annex 6: Conf. 3.10: Resolution for Review and Harmonization of Annual Reports adopted at New Delhi (India)
- Annex 7: Nomenclature Committee members at the Gaborone meeting
- Annex 8: Sample response to a nomenclatural inquiry
- Annex 9: Summary report and request for continuing support submitted at Gaborone (Botswana)
- Annex 10: Agenda (provisional) for the meeting of the Nomenclature Committee in Buenos Aires (Argentina), 23 April 1985
- Annex 11: The title page, table of contents, and selected examples of taxa citations from Amphibian Species of the World: A Taxonomic and Geographic Reference

REPORT OF THE CHAIRMAN OF THE NOMENCLATURE COMMITTEE

1. Terms of Reference

The role and initial charge for an ad hoc Nomenclature Committee were established at the special working session (Geneva, 1977) of the Conference of the Parties (Conf. S.S. 1.7; Annex 2). The Parties then agreed that implementation and management of the Convention would be enhanced if a standardized taxonomy were adopted and expanded checklists of animal species and plant genera were available. A preliminary checklist of the vertebrate species of the world was submitted for consideration at the second meeting of the Conference of the Parties (San José, 1979). The Parties adopted this preliminary list and resolved to continue the work of the Nomenclature Committee (Doc. 2.22.1; Annex 3). The Committee was to expand the preliminary list to include supplementary information on listed taxa including the author, date of original publication, geographic distribution, and subspecies. It was further resolved that the Committee, in accordance with Resolution Conf. 2.3, was to prepare and submit a proposal to the United Nations Environment Programme (UNEP), pursuant to Decision 6/5 D (1978) of the Governing Council of UNEP.

At the third meeting of the Conference of the Parties (New Delhi, 1981), the Parties continued their endorsement of the Nomenclature Committee [Plen. 3.4 (Rev.); Annex 4]. Subsequent funding of US\$ 20,000 from UNEP allowed completion of the expanded mammal checklist which was presented at the fourth meeting of the Conference of the Parties (Gaborone, 1983). The publication based on the checklist data-base was published with private funds as Mammal Species of the World: A Taxonomic and Geographic Reference and was formally adopted as the "Standard Reference" for mammalian taxonomy at the Gaborone meeting (Conf. 4.23; Annex 5). At that time, the Committee was also charged with expanding the mammal reference list to include all subspecies for those species in which subspecies are listed in the appendices to the Convention and to develop expanded checklists of amphibian, reptile, and bird species.

In addition to checklist development and maintenance, the role of the Committee has expanded to include: 1) provision of consultancy (advisory) services to the Secretariat and Party states between the meetings of the Conference of the Parties; and 2) review of the nomenclature of species listed in the appendices and those species proposed for listing. It has also been recommended that "...the Nomenclature Committee ...provide guidance ...on the appropriate classification of taxa and statistical data in the annual reports of the Parties..." to enhance the harmonization of the data (Conf. 3.10; Annex 6).

2. Committee Organization and Membership

The underlying principal behind establishment of the Nomenclature Committee was the Parties' need for a mechanism to obtain advice and interpretations from professional systematists. Unlike the discrete products of the Identification Manual Committee, the Nomenclature Committee presents opinions that are time dependent and interpretive in nature.

Membership on the Nomenclature Committee has been fluid, being comprised of those individuals who have an interest in taxonomy and attend the Committee meetings held in conjunction with the meetings of the Conference of the Parties. Representatives of Non-Government Organizations and state delegations have attended these meetings. Membership of the Committee has been international but not determined on the basis of geographic or political guidelines. The present Chairman was elected by those Committee members present at the Gaborone meeting. A list of the Nomenclature Committee members at the Gaborone meeting of the Conference of the Parties is attached as Annex 7.

Practically speaking, the work of the Nomenclature Committee has focused almost exclusively on the Chairman between meetings of the Conference of the Parties. During this interim period, the Chairman performs two distinct roles: 1) serving as an advisor or consultant to the Secretariat staff and/or Parties; and 2) serving as Project Co-ordinator for the development of the expanded checklists.

Inquiries regarding the nomenclatural status of a particular taxon have been presented to the Chairman, who in turn represents the question to a number of specialists familiar with the nomenclature of the group in question. The opinions of the specialists are summarized and the answer forwarded to the inquirer. A sample response is represented as Annex 8. Most of the specialists are selected from the contributors/reviewers that participate in the development and expansion of checklists.

To date, expansion of the vertebrate checklist has involved over 300 different specialists from throughout the world. These activities have been co-ordinated through the Association of Systematics Collections under the supervision of the Chairman of the Nomenclature Committee.

Finally, the ten-year review of the nomenclature of taxa listed in the appendices has involved a more formal process. A preliminary report is prepared by the Chairman, based on information from the expanded checklists. This report is then circulated to the Committee members with a form to record their opinions. Comments are then integrated into the report which is reviewed at the Nomenclature Committee meeting at the meeting of the Conference of the Parties. The Committee then presents its final recommendations to the Parties for their consideration.

3. Work of the Committee

Subsequent to the last meeting of the Conference of the Parties, the Nomenclature Committee requested a total of US\$ 48,760 for 1984-1985 to continue the work of expanding the checklists. A copy of the report and a statement of the project objectives are included as Annex 9. No funds were available in 1983, US\$ 5,000 was provided in late 1984, and an additional US\$ 5,000 was provided in early 1985.

Nevertheless, since the last meeting of the Conference of the Parties the Nomenclature Committee, in collaboration with the Association of Systematics Collections, has accomplished the following:

- A. Completed compilation of an expanded checklist of the amphibian species. The publication, Amphibian Species of the World: A Taxonomic and Geographic Reference, will be available in July of this year. This publication is based on contributions from 59 herpetologists from 21 countries. Editorial responsibility for the content of the list rests with the World Congress of Herpetology. The governing council of

this international organization overwhelmingly endorsed their collaboration in the project and will serve a similar role for the preparation of checklists of reptiles. Revenue from the sale of the amphibian volume will cover the costs of maintaining and revising this computerized checklist.

- B. Completed initial expansion of the checklist of Turtle and Crocodilian Species. The list must now be submitted to review and the comments and changes incorporated into the list. This reference list could be completed in late 1985 if funds are available; publication would be scheduled in early 1986.
- C. Initiated work on expanding checklists of snakes, lizards, amphisbaenids, and rhynchocephalians in early May, 1983; however, due to lack of funding, work was suspended in October, 1983.
- D. Initiated revision of the mammal checklist in collaboration with an international committee of the American Society of Mammalogists. It is anticipated that a revised checklist will be available in 1986.
- E. Responded to a number of inquiries regarding the nomenclatural status of taxonomic groups (see Annex 8 for an example).

4. Conclusions and Recommendations

The Nomenclature Committee is scheduled to meet in the evening of 23 April 1985. The Agenda (provisional) for that meeting is attached as Annex 10. At that meeting, the Committee will review the report of the Chairman, and make its formal recommendations to the Parties. The Chair presents three organizational recommendations that would enhance the effectiveness of the Committee. These recommendations are presented below to facilitate discussion. In addition, the Committee will review specific nomenclatural questions that have been referred to the Committee.

A. Reorganize the Nomenclature Committee

The Nomenclature Committee was originally established to develop expanded checklists and subsequently has been asked to provide advisory and interpretive services for the Parties to the Convention. The present organization of the Nomenclature Committee does not provide mechanisms for the Parties to independently evaluate recommended taxonomic changes.

The Parties are urged to provide formal terms of reference for the Nomenclature Committee, define its membership, and revise its charge to serve as a body to review information provided by professional systematists and recommend to the Parties or Secretariat how this information should be interpreted within the context of the Convention. The decision to adopt, or reject, the recommendations of the Committee would ultimately rest with the Parties.

To facilitate the Parties' consideration of this recommendation, a suggested organizational model is presented which will be reviewed at the meeting of the Nomenclature Committee scheduled during the meeting of the Conference of the Parties.

1. Organization and Terms of Reference: The Nomenclature Committee would report, through its Chairman, to the Parties at the meetings of the Conference of the Parties and to the Secretariat

between such meetings. The Chairman of the Nomenclature Committee shall be elected by Committee members at the scheduled meeting of the Committee, at the meetings of the Conference of the Parties.

- ii) Charge: The Nomenclature Committee would be responsible for providing periodic review of the taxa listed in the appendices (particularly in conjunction with the ten-year review process); would co-ordinate with the Technical and Identification Manual Committees to assure that nomenclatural needs are met in a manner consistent with the needs of the Parties; and would review completed checklists for the purpose of identifying those taxonomic inconsistencies with the listings in the appendices and recommending to the Parties any exceptions that should be noted before the checklists are adopted as "standard references" to nomenclature.
- iii) Membership: The membership in the Nomenclature Committee should comprise experts nominated by the Parties whereby representation of all geographic regions should be ensured to the extent possible.

B. Provide a contract for the continued development of the checklists

Continued expansion of the basic checklists is extremely important to the administration of the Convention. Given the nature of taxonomy and the required diversity of systematic specialists needed to compile and expand checklists and monitor taxonomic changes, the Parties are urged to accomplish this goal under a contract with the Association of Systematics Collections (ASC) that would be administered by the Secretariat.

If the Parties decide to proceed with the continued development of reference checklists, it is suggested that the Parties include a provision for this activity within the regular budget of the Convention. The goal of the contracted service and associated budget are presented below for consideration by the Parties.

Under the proposed contract the ASC would, by the next meeting of the Conference of the Parties, accomplish the following:

- i. Complete preparation of an expanded checklist of the turtle and crocodilian species of the world. The information presented on each taxon would substantially be the same as that provided in the amphibian checklist (see Annex 11). In addition, subspecies of concern to the Parties would be listed, with references to pertinent bibliographic citations.
- ii. Complete compilation and expansion of a checklist of the snake species of the world. The same information categories and format represented in the amphibian checklist would be used.
- iii. Assure publication of Turtle and Crocodilian Species of the World: A Taxonomic and Geographic Reference at no cost to the Parties.
- iv. Continue to consult with the Secretariat on matters pertaining to the nomenclature of taxa of concern to the Parties.

- v. Because the contracted service is for the purpose of developing reference checklists, if the Parties have need for additional services, supplemental funding will be required.

The budget necessary to accomplish these goals is presented below:

	Year 1	Year 2
1. Personnel		
a. Research Assistant ¹	9,000	9,450
b. Data entry clerk ²	4,000	3,600
2. Fringe benefits ³	1,430	1,435
Sub-total:	14,430	14,485
3. Supplies, Telephone, Postage	1,570	1,515
4. Travel for Project Co-ordinator to attend CITES meetings and visit Secretariat in alternate years	4,000	4,000
TOTAL:	20,000	20,000

C. Adopt Amphibian Species of the World: A Taxonomic and Geographic Reference as the "standard reference" for amphibian nomenclature

The Nomenclature Committee urges, for effective implementation of the Convention, that the Conference of the Parties adopt Amphibian Species of the World: A Taxonomic and Geographic Reference as the standard nomenclatural reference for amphibians and that this reference be updated in conjunction with the scheduled meetings of the Parties. The Nomenclature Committee shall review this checklist and inform the Parties of changes in the nomenclatural status of listed species. The title page, table of contents, and selected examples of taxa listing from the book are provided as Annex 11.

The amphibian checklist was developed with contributions from 59 specialists from 21 countries. The completed volume provides detailed information on 4,014 species. The World Congress of Herpetology has agreed to appoint an editorial committee and supervise periodic revision of the checklist. The Association of Systematics Collections will continue to maintain the computerized list of species and associated data.

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- ¹ Ph.D. candidate, or equivalent; one-half time for 9 months at US\$ 600/mo, full time for 3 months at US\$ 1200/mo.
- ² Paid on an hourly basis, averaging one-half time.
- ³ Obligated Federal Social Security and State Unemployment Taxes; 11% of gross salaries.

The amphibian checklist will be published in July of this year. The book, available only as a hardback edition, will be similar in format to Mammal Species, and consists of 742 pages. The prepublication price (and continuing price to Party states) will be US\$ 65.00; after June 1, 1985 the book will sell for US\$ 85.00.

Dr. Stephen R. Edwards
Chairman, Nomenclature Committee

22 March 1985

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

SPECIAL WORKING SESSION OF THE
CONFERENCE OF THE PARTIES

Geneva (Switzerland), 17 to 28 October 1977

RECOMMENDATION OF THE SPECIAL WORKING SESSION

ANALYSIS OF APPENDICES I AND II
OF THE CONVENTION

Standardization of Appendices Taxonomy, and
Treatment of Synonyms

I. INTRODUCTION

1. RECOGNIZING that the taxonomy used in the appendices of the Convention will be most useful to the Parties if it does not change more frequently than necessary, since each change may necessitate amendment of national implementing legislation;
2. RECOGNIZING further that the format of the appendices should be standardized to eliminate confusion and that the annotation used in one part must have the same meaning when used in another section of the appendices;
3. BELIEVING that it is desirable to keep the appendices as brief and uncluttered as possible to aid in visual scanning of the lists, and to ease their computerization for customs purposes;
4. RECOGNIZING finally that having available complete checklists of animal species and plant genera would assist customs and other enforcement officials in detecting false or invalid taxa used by importers or exporters;

II. THE SPECIAL WORKING SESSION OF THE CONFERENCE OF THE PARTIES
RECOMMENDS

5. That the Parties agree to the adoption of a standardized appendices' taxonomy;
6. That in so far as possible, taxonomy be based on rulings of the International Commission on Zoological Nomenclature and International Code for Botanical Nomenclature;

*This document was prepared after the session from document Com. S.S. 1.7 adopted after being amended. (Note from the Secretariat).

7. That a committee of experts be appointed by the Steering Committee to draft a provisional standard taxonomy and to compile a list of taxonomic bibliographic source materials for circulation to the Parties no later than September 1978;
8. That the Parties agree to the removal of all taxonomic synonyms, sub-genera, and other parenthetical taxa from the appendices, and if the identity of a particular taxon is unclear, that it be clarified by footnote references;
9. That once a standardized taxonomy and list of bibliographic source materials is approved by the Parties, the Secretariat undertake the production of checklists of animal species and plant genera, and make them available to those Parties requesting such checklists. Checklists of genera in the tree ferns (Cyatheaceae and Dicksoniaceae), cycads (Cycadaceae, Stangeriaceae and Zamiaceae), Didiereaceae,, cacti (Cactaceae), and orchids (Orchydaceae) are available.

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

SECOND MEETING OF THE CONFERENCE OF THE PARTIES

San José (Costa Rica), 19 to 30 March 1979

STANDARDIZATION OF APPENDICES TAXONOMY, AND
TREATMENT OF SYNONYMS

DRAFT RESOLUTION OF THE CONFERENCE OF THE PARTIES

Project Proposal to the United Nations Environment
Programme on the Development of a Standardized
Nomenclature for the Appendices to the Convention

NOTING that Decision 6/5 D (1978) of the Governing Council of UNEP invites the Parties to the Convention to submit to the United Nations Environment Programme from time to time proposals for research and other projects which would assist in the effective implementation of the Convention;

RECOGNIZING that the taxonomy used in the appendices of the Convention will be most useful to the Parties if it does not change more frequently than necessary, since each change may necessitate amendment of national implementing legislation;

RECOGNIZING further that the format of the appendices should be standardized to eliminate confusion and that the annotation used in one part must have the same meaning when used in another section of the appendices;

BELIEVING that it is desirable to keep the appendices as brief and uncluttered as possible to aid in visual scanning of the list, and to ease their computerization for customs purposes;

RECOGNIZING that having available complete check lists of animal species and plant genera would assist customs and other enforcement officials in detecting false or invalid taxa used by importers or exporters;

RECOGNIZING finally that the ad hoc Committee of Experts designated at the special working session of the Conference of the Parties, has presented a provisional listing of standardized scientific names of the vertebrates and of genera of plants;

THE CONFERENCE OF THE PARTIES TO THE CONVENTION

RESOLVES

- (a) That the provisional list be accepted by the Parties as a basis for further developing and refining a standardized nomenclature of the vertebrates and plants;
- (b) That the ad hoc Committee shall continue its work and consider the possibility to include supplementary information such as the author of the taxon, date of original publication, geographic distribution and subspecies;
- (c) That the previously established ad hoc Committee be directed to prepare a proposal to further expand and refine the standardized nomenclature of vertebrates and plants for presentation at the next regular meeting of the Conference of the Parties to the Convention;

REQUESTS the Secretariat to submit the project proposal, and to execute the project upon approval by UNEP, in consultation with the aforementioned ad hoc Committee of experts; and

INVITES the Parties to submit comments on the existing draft and suggestions on the future work of the Committee.

/This document and the basic document Doc. 2.22 were adopted by the Conference of the Parties (see Plen. 2.9 (Rev.), page 114, item XXI). Due to the adoption of document Doc. 2.9.3, which became Resolution Conf. 2.3, this document was not issued as a separate resolution of the Conference of the Parties. It will, however, be taken into account for the elaboration of a project proposal to be submitted to UNEP or another funding source. (Note from the Secretariat)/.

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

THIRD MEETING OF THE CONFERENCE OF THE PARTIES
New Delhi (India), 25 February to 8 March 1981

SUMMARY REPORT OF THE PLENARY SESSION
Fourth session: 27 February 1981: 09h00 - 13h00

Chairman:	M.K. Dalvi
Vice-Chairman:	R.M. Parsons
Secretariat:	P.H. Sand J. Berney
Rapporteurs:	V. Burton D. Navid

X Financing of the Secretariat and of meetings of the Conference of the Parties

The Chairman of the Finance Committee reported that the Committee met on the previous afternoon and agreed in principle on the figures provided for 1980 expenses and the 1982-83 budget provided that there was no real growth included in the budget due to exchange rate fluctuations. He also announced that a special drafting group had met to consider the Terms of Reference and the proposal of the United States in document Doc. 3.7.2. The Committee was not able to discuss the issue of Conference fees or headquarters matters and would be reconvened in the afternoon, to finish its work.

XII Committee Reports and Recommendations

2. Identification Manual Committee

The Chairman of the Identification Manual Committee introduced two relevant documents, Doc. 3.11 and the Volume 3 of the Identification Manual. He indicated that both had been approved by the Committee. The Chairman explained that several Parties had agreed to produce materials for future volumes. Until now funding had been provided by the Swiss Government and the Secretariat. Additional support would be forthcoming from UNEP, WWF-Switzerland and the International and German Fur Trade Associations. The Chairman indicated that a draft resolution would be submitted to

the Parties concerning an extension of the Committee's mandate and asking the Parties to contribute to the work of the Committee. Furthermore, Parties proposing new species for the appendices would be asked to provide data sheets on the species for the Manual within a reasonable period. In concluding his remarks the Chairman underlined the importance of the Manual as educational material for enforcement personnel and indicated that the Secretariat, and members of the Committee, would be pleased to provide advice in regard to identification issues to any Parties so requesting.

The delegations of India and the United States of America both congratulated the Chairman on the work of his Committee. The former also suggested that the Scientific Authorities of the Parties be consulted as to the accuracy of the data, prior to the completion of the Manual, and the latter specifically endorsed the concept that a Party proposing a new species for inclusion in the appendices provide a data sheet on that species for the Manual.

The Chairman of the meeting expressed his gratitude to the Committee and accepted the report on behalf of the meeting.

3. Nomenclature Committee

The Chairman of the Nomenclature Committee introduced document Doc. 3.12. He stressed that he was speaking as Chairman of the Committee and not in his capacity as observer from IUCN. The Chairman reviewed the history of the Committee's work including the funding difficulties it had faced and expressed appreciation to the US Fish & Wildlife Service and the US Department of Energy for their support. He explained that UNEP had agreed to fund the project to the extent of US\$ 10,000 for each of two years but the funds had not yet been received. The Chairman asked for an indication from the meeting as to whether it was the wish of the delegates that work on nomenclature should continue and in such case to provide some funding assurances. Further information about the compilation work was provided by the Committee's expert consultant.

The observer from UNEP announced that the promised funding was now available and regretted the delay in payment.

The project was endorsed by the delegations of India, which supported increased co-operation by national authorities, Indonesia, which indicated that its national institutions could benefit the Committee and expressed regret that they had not as yet been consulted, Sri Lanka which submitted that certain erroneous listings could be found in the Convention appendices because of nomenclature problems, and Israel which proposed that the Parties establish a special fund for this work. In reply to a question from the observer from the United Republic of Tanzania, the Chairman of the Committee indicated that the next grouping (reptiles and amphibians) would require two years work with US\$ 10,000 funding for the first year and US\$ 15,000 for the second needed in addition to the UNEP support. In reply to a comment from an observer, the Chairman also confirmed the intention to regularly update the species lists. The delegation of the United Kingdom drew the meeting's attention to the World Checklist of Endangered Amphibians and Reptiles being distributed at this Conference,

saying that this would provide a good basis for the Committee's work. It further reminded the Parties that a comprehensive listing had already been made for plant species.

The observer from the Netherlands took the opportunity to inform the meeting that the ratification process for the Convention was still underway in his country. He expressed regret that it had not been possible for this to be concluded before this meeting, but that this should happen in the near future. He asked the Nomenclature Committee about the use of code numbers which had been decided upon in San José, and whether it would be possible to produce a list of species names without other explanatory documentation. The Chairman replied that code numbers were being provided by ISIS and would be incorporated in the final listings, following revisions in the ISIS system. The Chairman finally indicated that it would be possible for the Committee to provide updated species lists for future meetings of the Conference of the Parties and this was welcomed by the delegation of Tunisia.

The Vice-Chairman informed the meeting that he had had the pleasure of working with those responsible for the nomenclature listing and wished to record his appreciation for their effort. The delegation of India recorded its appreciation of the good work done by the Identification Manual Committee and the Nomenclature Committee and conveyed its willingness to be associated more closely with the further work of these Committees.

4. Ranching Committee

The Chairman of the Ranching Committee introduced document Doc. 3.13 stressing that he was doing so in his capacity as Chairman and not as a member of the United Kingdom delegation. He brought several introductory points to the attention of the meeting including the fact that the Committee's proposal on ranching only applied to Appendix I species, that if a wild population could withstand harvesting for commercial purposes it would be better placed on Appendix II rather than on Appendix I, and that the focus of the Committee had been a narrow one for commercial ranching.

The Chairman proposed two amendments to the draft resolution, included as Annex 4 to document Doc. 3.13. The first being the deletion of the word "substantially" in the third line of subparagraph b) 1. and the second being the replacement of the words "more time than" by the words enough time as in line three of the 3rd section of b) 1. ii).

The Chairman stressed that the main criteria for an approved ranching operation must be 1) establishing to the satisfaction of the Management Authority of the Party concerned and to an international scientific body that the ranching operation is not detrimental to wild populations and 2) all products from a ranching operation be appropriately marked. He indicated that the alternative solution of moving ranched populations of Appendix I species to Appendix II did not ensure the safeguards noted above but admitted that the Committee did not pursue this question.



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

Fourth Meeting of the Conference of the Parties
Gaborone (Botswana), 19 to 30 April 1983

RESOLUTION OF THE CONFERENCE OF THE PARTIES

Conf. 4.23*

Standard Nomenclature

RECOGNIZING that the taxonomy used in the appendices to the Convention will be most useful to the Parties if standardized by a nomenclatorial reference,

NOTING that biological nomenclature is not static,

RECOGNIZING that the Parties have adopted the Dictionary of Flowering Plants and Ferns (Willis, J.C. revised by H.K.A. Shaw, 1973) as the standard reference to generic nomenclature for plants,

NOTING that the Parties have charged the Nomenclature Committee with preparing standard references to the nomenclature of mammals, birds, reptiles, amphibians and fishes,

NOTING that the Committee has completed preparation of the mammal list, and is currently preparing lists of amphibians and reptiles,

AWARE that the Nomenclature Committee has identified names of mammals and reptiles used in the appendices to the Convention that should be changed to reflect accepted biological use,

NOTING that these changes should be adopted by the Conference of the Parties to the Convention,

RECOGNIZING that, in the case of new proposals for listing on the appendices, a Party may find it appropriate to reference alternative literature,

THE CONFERENCE OF THE PARTIES TO THE CONVENTION

RECOMMENDS

- a) that upon receiving proposals to amend the appendices to the Convention, the Secretariat seek, where appropriate, the advice of the Nomenclature Committee on the correct names to use for the species or other taxa in question;

* This document was prepared after the meeting from document Com. 4.16 Annex adopted without amendment. (Note from the Secretariat).

- b) that the Secretariat may make orthographic changes in the lists of species included in the appendices to the Convention, without consulting the Conference of the Parties;
- c) that the Secretariat present changes in nomenclature used in the appendices to the Convention, other than orthographic changes, to the Conference of the Parties for decision when:
 - i) the changes have been recommended or reviewed by the Nomenclature Committee; and
 - ii) the changes will not alter the scope of protection for fauna or flora under the Convention;
- d) that whenever a recommended change in nomenclature used in the appendices to the Convention will alter the scope of protection for fauna or flora under the Convention, it be submitted by a Party for consideration as a formal amendment in accordance with Article XV or XVI of the Convention;
- e) that, because continued use of parentheses to denote nomenclatorial synonyms will make the appendices progressively more difficult to scan and will introduce unnecessary confusion, and in keeping with the recommendation adopted in Geneva to refrain from use of parentheses to annotate listed species unless absolutely necessary, such nomenclatorial information be removed from the appendices and be maintained in an associated annotated list;
- f) that the Nomenclature Committee prepare a standardized nomenclatorial reference for mammals to the level of subspecies for all species in which subspecies are listed on the appendices to the Convention; and
- g) that provisions be made for additional funding to continue development of standard references to the nomenclature of mammals, amphibians, reptiles, birds and fishes;

RESOLVES that for purposes of effectively implementing the Convention, the Mammal Species of the World; A Taxonomic and Geographic Reference be adopted as the standardized nomenclatorial reference for mammals and that this reference be updated in conjunction with the regular meetings of the Parties for their review and acceptance; and

URGES the Parties, as an interim aid to bird nomenclature, to follow the taxonomy provided in Morony, Bock and Farrand (A Reference List of the Birds of the World, the most recently updated edition, Amer. Mus. Nat. Hist.).

Conf. 3.10*

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

THIRD MEETING OF THE CONFERENCE OF THE PARTIES
New Delhi (India), 25 February to 8 March 1981

RESOLUTION OF THE CONFERENCE OF THE PARTIES

Review and Harmonization of Annual Reports

CONSIDERING the importance of the annual reports provided by Parties under the provisions of Article VIII, paragraph 7, of the Convention for the purposes of trade monitoring;

RECALLING Resolution Conf. 1.5, paragraph 13, adopted at its first meeting (Berne, 1976), and Resolution Conf. 2.16, adopted at its second meeting (San José, 1979);

NOTING with appreciation the work carried out by the TRAFFIC Group as consultant for the comparative tabulation of the trade statistics provided in the 1978 annual reports;

RECOGNIZING that many Parties have not to this point complied with the reporting requirements of the Convention in a full and timely manner;

CONSCIOUS of the need to harmonize the system and format of trade statistics in order to make optimal use of these reports;

THE CONFERENCE OF THE PARTIES TO THE CONVENTION

URGES every Party to comply fully with the requirements of Article VIII, paragraph 7, of the Convention and Resolutions Conf. 1.5 and Conf. 2.16, and in particular with respect to:

- i) alignment of statistics with the calendar year;
- ii) submission within the required deadlines and in the required quantities; and
- iii) indication of the countries of origin, re-export and destination or justification for omitting such indication;

* This document was prepared after the meeting from document Com 3.15 (Rev.) adopted without amendments. (Note from the Secretariat).

RECOMMENDS

- a) that specimens be listed in reports under the appendices on which the species is listed, with a special annotation where required; e.g., in the case of Appendix I specimens covered by exemptions pursuant to Article VII of the Convention, and also to include, where available, particulars of specimens seized under provisions of the Convention;
- b) that all exports and re-exports be shown in a combined table, in the order of species listed, and with an annotation in the case of re-exports indicating the country of origin or justifying the omission of such indication;
- c) that the mandate of the Technical Expert Committee be expanded to include undertaking a periodic review of annual reports;
- d) that the Nomenclature Committee and the Identification Manual Committee provide guidance also on the appropriate classification of taxa and statistical data in the annual reports of the Parties;
- e) that Parties studying or developing computerization programmes for licensing and reporting trade under the Convention consult with each other, and with the Secretariat, in order to exchange information on the computer language used and to ensure optimal harmonization and compatibility of systems; and
- f) that Parties follow the format for the annual report as suggested by the Secretariat; and

REQUESTS the Secretariat to continue the regular comparative tabulation of annual reports from Parties, with a view to the publication of a Yearbook of International Wildlife Trade; and in consultation with the Chairman of the Technical Expert Committee, to explore the availability of external funding for this purpose.

MEMBERS OF THE NOMENCLATURE COMMITTEE
AT THE FOURTH MEETING OF THE CONFERENCE OF THE PARTIES
Gaborone (Botswana), 19 to 30 April 1983

G. Bejarano
Bolivia

K. Edelstam
Sweden

S. Edwards
United States of America

R. Honneger
Switzerland

F. Wayne King
NGO-United States of America

K. Klemmer
Federal Republic of Germany

G. Lucas
United Kingdom

W. Sung
China

B.K. Tikader
India

12 February 1985

Annex 8

MEMORANDUM

FROM: Stephen R. Edwards, Chairman
CITES Nomenclature Committee

TO: Stephen Dolan
Nature Conservancy Council
Northminster House
Peterborough, PE1 1UA
GREAT BRITAIN, UK

RE: Status of Epicrates fordii under CITES listings on
Appendix I or II.

From a nomenclatorial standpoint Epicrates fordii is a valid name applied to a distinct species restricted to the island of Hispaniola in the Antilles. The listing of Epicrates inornatus on Appendix I (4 February 1977) does not imply a comparable listing of Epicrates fordii. However, all species of Epicrates are covered by CITES under the umbrella listing of the family Boidae on Appendix II (4 February 1977).

The most recent scholarly review of the Antillean species of Epicrates by Sheplan and Schwartz (1974; Annals of the Carnegie Museum, Vol. 45, Art. 5:57-143) states that Epicrates inornatus, "...has been previously associated nomenclatorially with E. monensis, and E. granti." E. inornatus is restricted in its distribution to Puerto Rico. E. monensis includes two subspecies: E. monensis monensis from Isla Mona and E. monensis granti from the Virgin Islands, specifically St. Thomas and Tortula.

A preliminary nomenclatorial review of Epicrates fordii is attached.

Selected literature references are:

Sheplan and Schwartz, 1974. Annals of the Carnegie Museum, Vol. 45, Art. 5:104.

Schwartz, 1979. Herpetologica, 35(3):248-255.

I hope this information is of assistance. If you have any further questions, please write or call.

PRELIMINARY NOMENCLATORAL REVIEW OF

Epicrates fordii

- CLASS: Reptilia
 ORDER: Squamata
 SUBORDER: Serpentes
 FAMILY: Boidae
 GENUS: Epicrates Wagler, 1830. Nat. Syst. Amph.:168.
 TYPE SPECIES: Boa cenchria Linnaeus, 1758 by subsequent designation of Fitzinger, 1843.
 DISTRIBUTION: Central and northern South America; southern Central America; West Indies.
 STATUS: CITES Appendix II under Boidae (4 February 1977).
- CURRENT NAME: Epicrates fordii (Guenther 1861). Proc. Zool. Soc. London, 1861:142.
 ORIGINAL NAME: Pelophilus fordii
 OTHER SYNONYMS: Chilabothrus maculatus Fischer, 1888. Jb. hamburg. wiss. Anst., 5:1-52.
 TYPE(S): BMNH 1946.1.1.55.
 TYPE LOCALITY: "Western Africa" restricted by Sheplan and Schwartz, 1974 (Annals of the Carnegie Museum, Vol. 45, Art. 5:104) to "...vicinity of Port-au-Prince, Dept. l'Ouest, Haiti..."
 DISTRIBUTION: Hispaniola Island.
 COMMENT: Three subspecies are recognized.
 STATUS: CITES Appendix II under Boidae (4 February 1977).
- CURRENT NAME: Epicrates fordii fordii (Guenther 1861). Proc. Zool. Soc. London, 1861:142.
 TYPE(S): BMNH 1946.1.1.55.
 TYPE LOCALITY: "Western Africa" restricted by Sheplan and Schwartz, 1974 (Annals of the Carnegie Museum, Vol. 45, Art. 5:104) to "...vicinity of Port-au-Prince, Dept. l'Ouest, Haiti..."
 DISTRIBUTION: Hispaniola Island.
 STATUS: CITES Appendix II under Boidae (4 February 1977).
- CURRENT NAME: Epicrates fordii agametus Sheplan and Schwartz, 1974. Annals of the Carnegie Museum, Vol. 45, Art. 5:104.
 TYPE(S): MCZ 62656.
 TYPE LOCALITY: "Mole St. Nicholas, Departement du Nord-Ouest, Haiti...."
 DISTRIBUTION: "Probably from throughout the Presqu'ile du Nord-Ouest, Haiti."
 STATUS: CITES Appendix II under Boidae (4 February 1977).
- CURRENT NAME: Epicrates fordii manototus Schwartz, 1979. Herpetologica, 35(3):248-255.
 TYPE(S): CM 60519.
 TYPE LOCALITY: "Ile a'Cabrit, Dept. de l'Ouest, Haiti."
 DISTRIBUTION: Type locality.
 STATUS: CITES Appendix II under Boidae (4 February 1977).



association of systematics collections

Doc. 5.16

Annex 9

Museum of Natu
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Lawrence, Kansas
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Cable: Taxon La

President
George M. Davis
Academy of Natural Sciences
of Philadelphia
Nineteenth and The Parkway
Philadelphia, Pennsylvania 19103
(215) 299-1132

Vice President
Lorin I. Nevling, Jr.
Field Museum of Natural History
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Secretary
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Frank Radovsky
Bernice P. Bishop Museum
P.O. Box 19000-A
Honolulu, Hawaii 96819
(808) 847-3511

Executive Director
Stephen R. Edwards

26 April 1983

MEMORANDUM

TO: CITES Secretariat
c/o IUCN,
Avenue du Mont-Blanc
CH-1196 Gland, Switzerland

FROM: Stephen R. Edwards
Executive Director

RE: Progress report covering development and maintenance
of standardized references to vertebrate nomenclature.

1. Background.

Standard references to vertebrate nomenclature are being prepared in response to a resolution of the Parties to CITES (Doc. 2.22.1) to facilitate management of the Convention. At the fourth meeting of the Parties, in Gabarone, Botswana a more extensive resolution was approved (Com 4.16) in which Mammal Species of the World: A Taxonomic and Geographic Reference was formally designated as the standard reference for the Parties for mammalian nomenclature and calling for continued funding for the program.

2. Status.

2.1 Mammals.-- The first compilation of a standard reference to the nomenclature of a vertebrate group was published in July, 1982. Staff are monitoring changes in mammalian nomenclature and a revised edition is anticipated for the fifth meeting of the Parties. Changes in nomenclature of listed species of mammals will be communicated to the Secretariat when they have been verified. Copy of Mammal Species enclosed.

2.2 Amphibians.-- Staff has completed compilation of the basic list of recognized species based on generally available review or synthesis publications. Copy of the

Preliminary Draft of Amphibian Species of the World is provided. An advisory committee has been appointed, and it has identified principle contributors for opinion and annotation of the Amphibian list, based on taxonomic and geographic expertise. Appropriate sections have been prepared and circulated to the contributors for their examination. Guidelines for contributors have been developed and circulated to standardize the form and content of their contributions (Copy attached). In preparation of the review cycle, advertisements have been submitted to scholarly societies for publication in their journals in Japan, Britain, Europe, Africa, India, Australia, and the United States.

The contributor and review cycles will be completed in December, 1983. Publication of Amphibian Species of the World is expected in April, 1984.

2.3 Reptiles.-- Staff has completed compilation of approximately 70 % of the recognized species of reptiles (Copies attached). THIS LIST IS PROVISIONAL, HAS NOT BEEN REVIEWED, AND SHOULD NOT BE USED AS A NOMENCLATORIAL REFERENCE. The number of species (over 6,000) has obligated that the list be divided into three parts: 1) Turtles and Crocodilians, 2) Snakes, and 3) Amphisbaenids, Rhyncocephalians, and Lizards. Each will be published separately. Contributors have been identified but sections of the list have not yet been circulated. With continued funding at the requested level the contributor and review cycles will be completed prior to the next meeting of the Parties. Every effort will be made to have these parts published by that time.

3. Project Expenses (1983; UNEP contribution only).

3.1 Salaries	7,800.00
3.2 Unemployment Insurance	390.00
3.3 Data entry (contract)	1,000.00
3.4 Postage, Phone, etc.	300.00
3.5 Supplies	510.00
TOTAL	10,000.00

4. Proposed Activities (1984-1985):

- 4.1 Mammals.-- Continue to monitor literature for changes in nomenclature. Report changes in nomenclature affecting species listed on the CITES Appendices to the Secretariat. Provide nomenclatorial reviews for the Secretariat and Party nations. Provide listings of other subspecies for species in which subspecies are presently listed on the Appendices.
- 4.2 Amphibians.-- Begin monitoring procedures for nomenclatorial changes. Report changes in nomenclatorial status of listed taxa to the Secretariat. Publish Amphibian Species of the World: A Taxonomic and Geographic Reference.
- 4.3 Reptiles.-- Complete contributor and extramural review processes. Complete internal editorial procedures. Prepare manuscripts for transmission to the printer.
- 4.4 Birds.-- Begin process of compiling initial list of extant species of birds of the world.

5. Proposed Budget (1984-1985):

	1984	1985
4.1 Staff salaries		
2 one-half time graduate students: 12 mo @ \$650/mo	\$ 15,600.00	\$ 15,600.00
4.2 Unemployment Insurance	780.00	780.00
4.3 Data entry contract	4,000.00	4,000.00
4.4 Postage, phone, etc.	1,500.00	1,500.00
4.5 Miscellaneous supplies ^{1/}	2,500.00	2,500.00
TOTAL.	\$ 24,380.00	\$ 24,380.00

1/ Computer paper, print ribbons, print wheels, magnetic tapes, disc cartridges, etc.

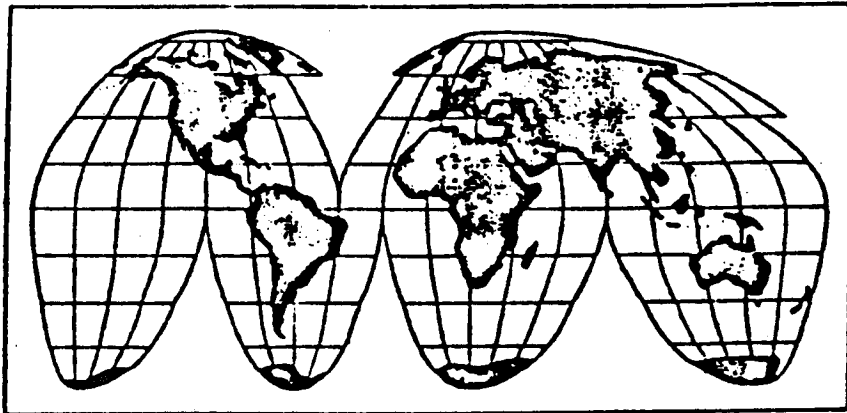
Nomenclature Committee Meeting

23 April 1985

AGENDA
(provisional)

- I. Review of Chairman's Report to the Conference of the Parties
 - A. Reorganization of the Nomenclature Committee
 - B. Contract for continued development of the reference checklists
 - C. Adoption of Amphibian Species of the World: A Taxonomic and Geographic Reference as the "standard reference to amphibian taxonomy"
- II. Review of nomenclatural questions with respect to taxa listed in the appendices. Specific nomenclatural questions, within each of the following groups, will be circulated at the time of the meeting:
 - A. Mammals
 - B. Birds
 - C. Reptiles
 - D. Molluscs
 - E. Flora

AMPHIBIAN SPECIES OF THE WORLD



A TAXONOMIC AND GEOGRAPHICAL REFERENCE

Edited by

Darrel R. Frost

Published as a Joint Venture of
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and

The Association of Systematics Collections
Lawrence, Kansas, U.S.A.

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CHECKLIST OF AMPHIBIAN SPECIES OF THE WORLD

CLASS AMPHIBIA

CLASS: Amphibia Linnaeus, 1758.

CITATION: Syst. Nat., Ed. 10, 1:194.

DISTRIBUTION: Cosmopolitan except for extreme northern latitudes, Antarctica, and most oceanic islands.

COMMENT: The phylogenetic relationships of the groups within the Class are problematical. Jarvik, 1968, *In* Ørvig (ed.), *Current Problems of Lower Vertebrate Phylogeny*, Nobel Symp. 4:497-527; Schmalhausen, 1968, *The Origin of Terrestrial Vertebrates*, Academic Press; Wake, 1970, *Forma et Functio*, 3:33-60; and Shishkin, 1973, *The Morphology of the Early Amphibia and Some Problems of Tetrapod Evolution*, Publ. House 'Nauka', Moscow, considered the Recent Amphibia to be polyphyletic while Eaton, 1959, *Univ. Kansas Publ. Mus. Nat. Hist.*, 12:155-180; Szarski, 1962, *Q. Rev. Biol.*, 37:189-241; Parsons and Williams, 1963, *Q. Rev. Biol.*, 38:26-53; Estes and Reig, 1973, *In* Vial (ed.), *Evol. Biol. Anurans*:11-63; Rage and Janvier, 1982, *Geobios*, Lyon, *Mém. Spec.*, 6:65-83; Lebedkina, 1979, *Evolution of the Skull in Amphibians*, Publ. House 'Nauka', Moscow; and Gardiner, 1983, *Zool. J. Linn. Soc.*, 74:207-232, considered the modern groups of Amphibia to form a monophyletic group. Lombard, 1979, *Biol. J. Linn. Soc.*, 11:19-76, discussed alternative views, but suggested, on the basis of ear anatomy, that the modern amphibian groups formed a monophyletic group. An increasing number of systematists (e.g., Gaffney, 1979, *Bull. Carnegie Mus. Nat. Hist.*, 13:92-105, and Wiley, 1979, *Zool. J. Linn. Soc.*, 67:149-179) reject the Amphibia as a valid taxon for those tetrapods (fossil and living) that are not amniotes. Gaffney, in particular, noted groups of extinct "Amphibia" that may be more closely related to amniotes than to the modern amphibians, the Lissamphibia.

REVIEWERS: David C. Cannatella (DCC) (Higher taxonomic accounts); William E. Duellman (WED); Marinus S. Hoogmoed (MSH); Raymond Laurent (RL) (Higher taxonomic accounts); John D. Lynch (JDL) (Higher taxonomic accounts); Jay M. Savage (JMS) (Higher taxonomic accounts).

ORDER ANURA

ORDER: Anura Rafinesque, 1815.

CITATION: *Analyse Nat.*:78.

DISTRIBUTION: Cosmopolitan except for extreme northern latitudes, Antarctica, and most oceanic islands.

COMMENT: As first formed, the group name was Anuria, an explicit suborder. Kluge and Farris, 1969, *Syst. Zool.*, 18:1-32; Inger, 1967, *Evolution*, 21:369-384; Lynch, 1973, *In Vial (ed.), Evol. Biol. Anurans*:133-183; and Duellman, 1975, *Occas. Pap. Mus. Nat. Hist. Univ. Kansas*, 42:1-14, discussed anuran phylogeny. Starrett, 1973, *In Vial (ed.), Evol. Biol. Anurans*:252-271, provided a classification based on larval morphology but this was contested by Sokol, 1975, *Copeia*, 1975:1-23. See also Laurent, 1979, *Bull. Soc. Zool. France*, 104:397-422. Savage, 1973, *In Vial (ed.), Evol. Biol. Anurans*:351-445, provided a biogeography and an extended classification based on Starrett's arrangement.

REVIEWERS: William E. Duellman (WED); Marinus S. Hoogmoed (MSH).

FAMILY: Arthroleptidae Mivart, 1869.

CITATION: *Proc. Zool. Soc. London*, 1869:294.

DISTRIBUTION: Sub-Saharan Africa.

COMMENT: As originally formed, the group name was Arthroleptina; the first use of the group name Arthroleptidae was by Dubois, 1981, *Monit. Zool. Ital., N.S., Suppl.*, 15:259. Before Dubois (1981), the Arthroleptinae and Astylosterninae were included either in the Ranidae or Hyperoliidae. The recognition of this family is premature given that no phylogenetic justification or diagnosis has been presented (JDL).

REVIEWERS: William E. Duellman (WED); Marinus S. Hoogmoed (MSH); Raymond Laurent (RL); John C. Poynton (JCP).

SUBFAMILY: Arthroleptinae Mivart, 1869.

CITATION: *Proc. Zool. Soc. London*, 1869:294.

DISTRIBUTION: Sub-Saharan Africa.

COMMENT: The original spelling of the group name was Arthroleptina; the first use of the justified emendation Arthroleptinae was by Noble, 1931, *Biol. Amph.*:515. Savage, 1973, *In Vial (ed.), Evol. Biol. Anurans*:356, following Griffiths, 1959, *Ann. Mag. Nat. Hist.*, (13)2:626-640, posited that this group had affinities with the Sooglossidae. Laurent, 1951, *Rev. Zool. Bot. Afr.*, 45:119, included this subfamily in the Hyperoliidae. Poynton, 1964, *Ann. Natal Mus.*, 17:159, kept this group in the Ranidae. Dubois, 1981, *Monit. Zool. Ital., N.S., Suppl.*, 15:259, included this group with the Astylosterninae in his Arthroleptidae.

REVIEWER: Alice G. C. Grandison (ACCG).

Arthroleptis Smith, 1849. *Illustr. Zool. S. Afr., Rept., App.*:24.

TYPE SPECIES: *Arthroleptis wahlbergii* Smith, 1849, by monotypy.

DISTRIBUTION: Africa south of the Sahara.

COMMENT: The content of this genus is controversial; see comment under *Schoutedenella*.

CONTRIBUTOR: Raymond Laurent (RL).

Arthroleptis adelphus Perret, 1966. *Zool. Jahrb., Abt. Syst.*, 93:397.

TYPE(S): Holotype: MHNG 1040.12.

TYPE LOCALITY: "Foullassi", Cameroon.

DISTRIBUTION: Forests of South Cameroon.

COMMENT: See Amiet, 1973, *Ann. Fac. Sci. Cameroun*, 13:150-151.

Arthroleptis adolfifriederici Nieden, 1910. *Sitzungsber. Ges. Naturforsch. Freunde Berlin*, 1910:440.

ORIGINAL NAME: *Arthroleptis adolfi-friederici*.

TYPE(S): Syntypes: (2 specimens) ZMB 21787, 21789.

TYPE LOCALITY: "Rugegewald" and "Bugoiwald", Rwanda.

DISTRIBUTION: Montane forests from eastern Zaire, Rwanda, Burundi, Uganda, Kenya, Tanzania, and Malawi.

COMMENT: Grandison, 1983, Bull. Brit. Mus. (Nat. Hist.), Zool., 45:77-84, discussed this and other large-sized species.

Arthroleptis affinis Ahl, 1939, Sitzungsber. Ges. Naturforsch. Freunde Berlin, 1939:303.
TYPE(s): Holotype: ZMB 23093.

TYPE LOCALITY: Amani (Deutsch-Ost-Afrika) [East Usambara Mountains, Tanzania].

DISTRIBUTION: Usambara and Uzungwe mountains, Tanzania.

COMMENT: Discussed by Grandison, 1983, Bull. Brit. Mus. (Nat. Hist.), Zool., 45:77-84.

Arthroleptis brevipes Ahl, 1923, Arch. Naturgesch., (A)90:252.

TYPE(s): Holotype: ZMB.

TYPE LOCALITY: "Bismarckburg, Togo".

DISTRIBUTION: Known only from the type locality.

Arthroleptis carquejai Ferreira, 1906, J. Sci. Math. Phys. Nat., Lisboa, (2)17:165.

TYPE(s): Holotype: MUP.

TYPE LOCALITY: "Cambondo", Angola.

DISTRIBUTION: Known only from the type locality.

Arthroleptis pectilonotus Peters, 1863, Monatsber. Preuss. Akad. Wiss. Berlin, 1863:446.

TYPE(s): Holotype: ZMB 3345.

TYPE LOCALITY: "Hollandischen Fesitzungen (Boutry) an der Kuste von Guinea" (Ghana).

DISTRIBUTION: Southern Sudan to Guinea and south to Zaire and Uganda.

Arthroleptis reichei Nieden, 1910, Sitzungsber. Ges. Naturforsch. Freunde Berlin, 1910:437.

TYPE(s): Syntypes: ZMB 21772, 21780.

TYPE LOCALITY: "Kratersee des Ngosi Vulcans", Poroto Mountains, Tanzania.

DISTRIBUTION: Poroto, Rungwe, Uzungwe, and Uluguru mountains of Tanzania and Malawi.

Arthroleptis stenodactylus Pfeffer, 1893, Jahrb. Hamburg. Wiss. Anst., 10:93.

TYPE(s): Holotype: ZMH; destroyed in World War II.

TYPE LOCALITY: "Kihengo", Tanzania.

DISTRIBUTION: Southern and eastern Zaire to Kenya and south to northern Natal (Rep. South Africa), Zimbabwe, and Mozambique.

COMMENT: Laurent, 1960, Rev. Zool. Bot. Afr., 34:85, proposed the subgenus *Coracodichus* for this species. Subsequent authors have retained *Coracodichus* as a synonym of *Arthroleptis*.

Arthroleptis tanneri Grandison, 1983, Bull. Brit. Mus. (Nat. Hist.), Zool., 45:78.

TYPE(s): Holotype: BM 1974.59.

TYPE LOCALITY: "Mazumbai, 4° 48' S 38° 29' E, West Usambara Mountains, ca. 1530 m elevation", Tanzania.

DISTRIBUTION: West Usambara Mountains, Tanzania.

Arthroleptis tuberosus Andersson, 1905, Ark. Zool., (2)20:14.

ORIGINAL NAME: *Arthroleptis variabilis* var. *tuberosus*.

TYPE(s): NHMC.

TYPE LOCALITY: Cameroon.

DISTRIBUTION: Rainforest from Cameroon to eastern Zaire.

Arthroleptis variabilis Matschie, 1893, Sitzungsber. Ges. Naturforsch. Freunde Berlin, 1893:173.

TYPE(s): ZMB.

TYPE LOCALITY: Buea, Cameroon.

DISTRIBUTION: Rainforest from Guinea to lower and eastern Zaire.