FLORA OF THE GUIANAS

GUIDE FOR CONTRIBUTORS



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(Originally printed in 1984, revised in 1988, 1989, 1992, 1994, 1999, 2006)

This guide will aid contributors to the Flora of the Guianas in their preparation of manuscript and illustrations. Following these instructions closely will allow manuscripts to be published in as short a time as possible. Contributors should follow the format prescribed in this Guide. They should communicate with the Editor M.J. Jansen-Jacobs, Nationaal Herbarium Nederland, Utrecht University branch, Heidelberglaan 2, 3584 CS Utrecht, The Netherlands (Fax +31 (0)30 2518061; e-mail: m.j.jansen-jacobs@bio.uu.nl), regarding questions of format not answered in these guidelines, and for interpretation of specific instructions.

Manuscripts shall be subject to review and acceptance by the Advisory Board. If possible, the treatments should be submitted as hard copy and electronic version. WORD and other major systems are acceptable. Instructions for the preparation can be obtained from the editor.

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INTRODUCTION

The Flora of the Guianas is a critical treatment of the plant taxa occurring in the Guianas, and deals, in principle, with phanerogams as well as cryptogams. It is based on studies of herbarium collections, including types, living plants, and of all relevant literature.

The Flora is designed not only for use by taxonomists, but also for practical use. Whenever possible, it will contain data on the economic value and use of the plant taxa, such as chapters on wood and bark anatomy in timber-supplying families, potential for cultivation, and also information on the need for conservation of taxa and/or habitats. Despite all the collecting done so far in the Guianas, a complete sampling of the region has not yet been achieved. A program of exploration will, therefore, be carried out. The scientific data serving as the basis for the Flora will also provide valuable information for studies in other disciplines. The Flora is expected to stimulate research in many other fields, especially with regard to the natural resources of the area and their conservation and development.

PREPARATION OF MANUSCRIPT FOR REVIEW, EDITING AND PUBLICATION

Manuscripts should be submitted as electronic version (preferably WORD) and as hard copy, typed on one side only, double-spaced, with ample margins. No lay-out should be given; only italics (not underlining) and boldface should be used. The manuscripts preferably complete with index chapters and collections studied.

Pages should be numbered.

Illustrations (drawings, photographs) in an electronic version and as hard copy, and given with figure number, author name, and legend.

Review

Manuscripts shall be subject to review and acceptance by the Advisory Board, and to adjustment of content in consultation with the Editor.

Matters of content and style not specified in the Guide may generally be decided by authors.

Authors will have to check the manuscript before it is sent to the publisher for printing and give final approval for the publication of the manuscript.

Extra corrections

Any extra costs relating to additions and corrections in the final proof will be charged to the author, unless correcting editors' or printers' errors.

DELIMITATION OF THE REGION

For practical reasons the region is limited to the political territories of Guyana, Suriname, and French Guiana. Maps of the region are available on request from the Editor's Office.

LANGUAGE

The Flora will be published in English. The manuscripts should, therefore, be submitted in this language.

ARRANGEMENT OF TAXA

The families will be published in fascicles of one or a few related families as the treatments become available. They will come out in the following series:

- A: Phanerogams
- B: Ferns and Fern allies
- C: Bryophytes
- D: Algae
- E: Fungi and Lichens

Supplementary series: open for publication of e.g. Index of Guianan Plant Collectors.

For phanerogams the system of Cronquist, An integrated system of classification of flowering plants. New York, 1981 will be followed. A numbered sequence of the families in accordance with this system is given in each fascicle of series A. The fascicles will also be numbered in the sequence of publication.

ORDER WITHIN EACH FAMILY

The genera will be treated in alphabetic order and numbered accordingly. Infrageneric taxa will be treated in the same way. Discussion of relationships within a family or genus may be given in paragraphs at the end of the descriptions.

NOMENCLATURE

Names of taxa will be in conformity with the rules of the most recent edition of the International Code of Botanical Nomenclature (ICBN). See websites: http://www.bgbm.fu-berlin.de/iapt/nomenclature/code/ http://www.ipni.org/index.html

AUTHOR CITATION

Citations of authors will be given for all names, including synonyms. Author names should be abbreviated, in accordance with one of the following sources:

- Stafleu & Cowan, Taxonomic Literature (TL-2), 1976-1988 + supplements.
- Brummitt & Powell, Authors of Plant Names, 1992, Kew 1992.
- Website: http://www.ipni.org/index.html
- Sayre, Bonner, Culberson, the Authorities for the epithets of Mosses, Hepatics and Lichens. The Bryologist 67 (2): 113-136. 1964.
- Otherwise according to common practice or in full.

GENERAL REFERENCES

Full reference to author and place of publication are to be given for the genera and infrageneric taxa.

For book titles, in principle, the abbreviations as used in TL-2 will be followed, but all initial letters are to be capitalized.

For journal abbreviations, the system of Lawrence *et al.*, Botanico-Periodicum-Huntianum (B-P-H), 1968, and Supplementum, 1991, will be followed.

To standardize two-dimensional shapes, such as those for leaves, follow the chart published in Taxon 11: 145-156, 245-247. 1962, and which appears in W.T. Stearn, Botanical Latin 3rd. rev. ed., pages 318-319, fig. 19. 1983.

COLLECTIONS TO BE STUDIED

It is important that authors preparing treatments should study collections from the herbaria of the participating institutions (B, BBS, BRG, CAY, K, NY, P, U, US) and from BM; it is advisable also to see collections from F, G, and MO.

LITERATURE

Taxonomic references are to be given in alphabetic order by author under the family, or if appropriate, under the genus.

The literature should consist of recent and critical works (especially for the region) e.g., Flora Neotropica, Flora de Venezuela, Studies on the Botany of the Guayana Highlands, etc. References cited under the genus (or family) should not be repeated under the species. The use of "l.c." should be avoided.

SYNONYMS

Only those synonyms relevant for the Guianas and those widely used are to be included.

This means:

- All names used as correct name for specimens from the Guianas in the Flora of Suriname and in Flore de la Guyane Française.
- All names in other post-1900 publications used as correct name of species of which is said it occurs in the Guianas. If recent investigations give the indication that it occurs not in the Guianas this should be mentioned in a Note.

Not to be included:

- Invalid names
- Generic names of which the type is not originating from the Guianas or adjacent regions.
- Later homonyms of an accepted name

Names are to be given in chronological order, each followed by its type, but homotypic synonyms will be cited in a single sequence, followed at the end by the type specimen on which they are based.

TYPES

Types are to be given for genus, species, and lower ranks. Lectotypes can be designated if not done previously, or reference given to the place of publication of the earlier choice.

<u>Type localities</u> within the Guianas should be given in the following order: Country, Department or Province, Locality (short), Collector (if necessary followed by number/and code for numbering institution). It may be helpful to give alternative numbers known for the specimen (e.g., Fanshawe 123 = FD 639) (see also Supplement A). Type localities outside the region can be cited with a brief indication of Country and Province.

<u>Locations of type specimens</u> are to be cited as in Index Herbariorum (website: http://sciweb.nybg.org/science2/IndexHerbariorum.asp); preferably as follows (holotype B, isotypes CAY, NY, P, U, US). Authors are encouraged to include a reference to microfiche or photographs of types by the citation of the negative

number.

If a type has not been studied, add: "not seen", or "according to".

INFRASPECIFIC TAXA

Those infraspecific taxa occurring in the region should be given. If there is only one infraspecific taxon, its presentation follows directly under the heading consisting of full name, author, and citation of place of publication of the species. If there are more infraspecific taxa, they are to be presented after the heading and the description of the species. Their diagnoses can be brief. Infraspecific taxa, not occurring in the region, may be mentioned at the end of the paragraph on distribution, or in a note.

Infraspecific taxa should be presented in the following manner (author names may be spelled out or abbreviated, but consistently so throughout the fascicle):

5. **Licania apetala** (E. Mey.) Fritsch, Ann. Natuurh. Mus. Wien 4: 54. 1889. — *Hirtella apetala* E. Mey., Nova Acta Acad. Leop.- Carol. 21:803. 1823. Type: Suriname, E. Meyer s.n. (holotype GOET).

Description, etc.

- 5a. **Licania apetala** (E. Mey.) Fritsch var. **apetala** Followed by synonyms, description, etc.
- 5b. **Licania apetala** (E. Mey.) Fritsch var. **aperta** (Benth.) Prance, Fl. Neotrop. 9:68. 1972.

Followed by synonyms, description, etc.

KEYS

Separate keys are to be provided for genera (and suprageneric taxa if relevant) within the family, and for species and infraspecific taxa within the genus. Keys are to be dichotomous, and not indented. Couplets are to be numbered. If necessary, couplets should be back-numbered in parentheses, especially for large steps, so that the users can read the key backwards, as well as forwards. Taxa should be cited with their number, but without author. Keys should be practical, and where possible provide a combination of vegetative and reproductive characters. Alternative keys may be included. Complex characters may be illustrated in the key or by reference to illustrations elsewhere.

DESCRIPTIONS

The descriptions of families, genera, and further supraspecific taxa are to be concise, without detailed measurements, and based mainly on taxa occurring in the Guianas. Repetition of constant family characters in the genus description, of

constant generic characters in the species description, etc. should be avoided. Species descriptions should stress distinguishing characters and give details of size, color, etc. Family descriptions should preferably be given on (less than) one manuscript page, genus and species descriptions on (less than) half a page. For details and sequence in the description, see "Technical instructions."

<u>Measurements</u>: in μ m, mm, cm, m are to be used consistently (same metric unit for the same organ) in the keys, and in the descriptions of all species of a genus, or in one key).

<u>Illustrations</u>: preferably provided for <u>at least one species per genus</u>, showing at least structure and details of flower and fruit. Scales should be drawn in the illustration.

DISTRIBUTION

The chapter on distribution may also be divided into separate sections on: "Distribution", and "Ecology". A paragraph on "Phenology" can also be added.

The sections should be very informative and give important information, preferably on each of the Guianas, e.g. on phenology, vegetation type, etc.

<u>Families</u>: an indication should be given of the number of genera and species occurring worldwide, in the neotropics, and in the Guianas respectively; <u>genera</u>: the number of species likewise; <u>species</u>: general distribution in the region, consisting of a short description based on a NW/SE plan following the sequence as used in Flora Neotropica (see Supplement A). The number of collections studied should be given, (if that number is large, one can state: "... over 100 collections studied"), followed by the number of collections studied per Guiana. These data should be presented thus: "(GU: ..; SU: ..; FG: ..)."

Short notes on <u>ecology</u> and <u>habitat</u> should be given.

<u>Specimens examined</u>. A separate paragraph "Specimens examined" will be included <u>if fewer than 7</u> collections were studied from the Guianas. These should be cited with their localities (Dept./Prov., Locality (short), Collector name/names (if more than one, say "et al.") and number. If possible, add acronyms of herbarium of voucher studied. <u>If more than 7</u> collections were studied from the Guianas, then "Selected specimens" should be given, preferably two per Guianan country arranged in country order: Guyana, Suriname, French Guiana, with preference given to collections that are widely distributed.

[It is important that authors preparing treatments should study collections from the herbaria of the participating institutions (B, BBS, BRG, CAY, K, NY, P, U, US) and from BM; it is advisable also to see collections from F, G, and MO. There might also be material in CM, and VEN. When possible, see material from Georgetown, Guyana Forestry Commission (FDG)).]

ECONOMIC USES

Data on uses will be included preferably with the source of information.

VERNACULAR NAMES

Collaborators are requested to present citation of vernacular names separately, with an indication of the language of the ethnic group or region, and of the source of the information (e.g. label, field notes, local people, etc.) and in the spelling as found and with accepted, scientific names, useful information obtained from field notes, etc. can also be included. This information will be arranged by country in order: Guyana, Suriname, French Guiana.

The editor will ensure a uniform spelling and will decide which vernacular names will be included.

NOTES AND OBSERVATIONS

Following the chapter on vernacular names, "Note(s)" or "Observation(s)" can be presented. These may be on taxonomic problems, but may also contain information on rare and endangered taxa, on cultivation potential, bio-indicator value, economic value, etc.

CULTIVATED TAXA

Only those taxa widely cultivated or planted, or often escaped are to be included. These are to be incorporated in the key, and their descriptions should be brief. Synonyms are to be given only if they are widely used. The citation of vernacular names may be essential in some instances. Economic uses should be given with more details. Authors should be aware of the useful information given by Ostendorf, F.W. 1962. Nuttige Planten en Sierplanten in Suriname. Landbouwproefstation in Suriname. Bulletin 79.

EXTRALIMITAL TAXA

Species at present known only from neighboring regions, but likely to occur in the Guianas, are to be included. These are to be incorporated in the key and descriptions should be brief.

ADDITIONAL INFORMATION

NOMENCLATURAL CHANGES AND NEW TYPIFICATIONS

Authors are encouraged to publish nomenclatural changes or new species elsewhere. However, when taxonomic decisions have been made resulting in

changes that were not previously published, they should be mentioned in this chapter to make them easily available.

Whenever it is necessary to include new taxa, give the Latin diagnoses (in ablative) or descriptions (in nominative and ablative) in discussions in an appendix and give the English descriptions in the treatment to make it as homogeneous as possible. If authors prefer, new taxa may be described with a very brief Latin diagnosis in the treatment itself.

WOOD AND TIMBER

Fascicles with woody representatives should have a chapter on "Wood & Timber" to include taxonomic descriptions, keys, and information on technical and mechanical properties. Photomicrographs should be added.

At the end of the fascicles the following information should be given:

NUMERICAL LIST OF ACCEPTED TAXA

The genera, species and infraspecific taxa will be presented with the numbers as given in the taxonomic part.

Example:

- 3. Couepia Aubl.
 - 3-1. C. bracteosa Benth.
 - 3-2. C. canomensis (Mart.) Benth. ex Hook.
 - 3-3. C. caryophylloides R. Ben.
 - 3-4. C. cognata (Steud.) Fritsch
 - 3-4a. var. cognata
 - 3-4b. var. major Prance
 - 3-4c. var. membranacea Prance

COLLECTIONS STUDIED

When reference is given to types in this list, include: (Numbers in bold refer to types)

The collections should be presented separately by Guianan country.

The collectors followed by initials and number, and reference to the taxon by the number, as given in the list of accepted taxa. See information on collectors and citation of collections in Supplement B.

Example:

GUYÁNA Abraham, A.A., 103 (5-23a); 258 (5-52)

FRENCH GUIANA

SURINAME

Burger, D., 21 (6-49)

Aublet, J.B.C.F., s.n (1-1); s.n. (5-23a); s.n. (6-28) BAFOG, (see Serv. For.), 1119 (7-1)

INDEX TO SYNONYMS, SPECIES MENTIONED IN NOTES AND SOME TYPES

The reference should be given to the numbers of the accepted taxa. Here also can be added "type".

Author names must be consistent throughout the fascicle.

```
Hirtella americana L., see 5, type

americana sensu Aubl. non L. = 5-23a

var. hexandra (Willd. ex R. & S.) J.D. Hook. = 5-23b

apetala E. Mey. = 6-5

oblongifolia DC. = 5-23b

punctulata (Miq.) Prance, see 5-29, note
```

INDEX TO VERNACULAR NAMES

Here too, reference should be given to the numbers of the accepted taxa.

Example:

aimoradan 3-13; 7-2 akainteisi-koko 5-14

TECHNICAL INSTRUCTIONS FOR DESCRIPTIONS OF PHANEROGAMS

The following sequence should be used in writing the descriptions. Terms underlined below (not to be underlined in the manuscript) should all be used, if that part of the plant is described. Note how the description is broken into several sentences (Habit, Stem, Leaves, Inflorescence, Flower, Infructescence, Fruit) and note how various parts are separated by "," or ";". The descriptions should be brief, hence terms may be omitted or shortened, while others may be added.

Habit (in family and genus description use plural, in species description singular), arrangement of staminate and pistillate flowers; characters in common for all parts; exudates.

<u>Stem</u> or <u>branches</u> - diameter, shape and structure, indument, surface.

<u>Branchlets</u> and/or <u>internodes</u> - diameter, substance, indument, surface.

<u>Leaves</u> - stipulate or not; sessile or not; arrangement, simple or compound (if compound: type of division, shape in outline, size, rachis length, articulations);

Stipules or sheath - position, shape, size;

petiole - size, indument;

<u>leaflets</u> (if compound) - sessile or not; <u>petiolules</u> - as under petioles; <u>stipels</u> - as under stipules;

<u>blades</u> (also if simple) - texture, shape, length x width, <u>margin, apex, base</u>, surface and indument <u>above</u>, <u>below</u>, other features;

<u>venation</u> - <u>primary vein(s)</u> (if venation is palmate the central primary vein: <u>central vein</u>); <u>secondary veins</u>, if venation pinnate, use 2 x .. or .. pairs, or .. per side; <u>tertiary veins</u>.

<u>Inflorescence(s)</u> - position, pedunculate or not, structure, shape and/or dimensions, indument, other features;

peduncle - dimensions, indument, other features:

bract(s) - position, shape, size, indument;

pedicel(s) - dimensions, indument, other features;

<u>bracteole(s)</u> - position, shape, size, indument.

<u>Flower(s)</u> - sessile or not, position, arrangement, regularity, fragrance (if flowers differ in sexuality <u>Staminate</u> and <u>Pistillate</u> flowers are described separately insofar as they are different);

Flower bud(s) (this information may also precede the flower description) - shape,

dimensions; <u>hypanthium</u> shape, dimensions;

<u>perianth</u> - absent/or with free <u>tepals</u>/or of connate parts; if not differentiated in 2 (or more) amply distinct whorls. However, if the perianth has 2 (or more) amply distinct whorls use <u>calyx</u> and <u>corolla</u> (if within a genus most of the species have a calyx and a corolla use that in all its species);

<u>calyx/</u> or connate tepals - connation, construction; essentially free <u>sepals</u> or <u>calyx lobes</u> or (connate) tepals - positioning, number, aestivation, color, texture, shape, dimensions, margin, apex, base, indument, other features;

<u>corolla</u> - connation, construction; essentially free <u>petals</u> or <u>corolla lobes</u> - as under sepals;

corona - construction, position;

disc, nectary(ies), etc. - position, color, shape, dimensions;

<u>androecium</u> - type, position; <u>stamens</u> - position/ insertion/ differentiation, number, <u>filament(s)</u> - color, length, indument, other features, <u>anthers(s)</u> -insertion, dehiscence, color, shape, dimensions, <u>theca(e)</u> - number (of locules), apex, base, <u>connective</u> - dimensions, apex, other features;

staminode(s) - as under stamens;

pistil - position, number, indument (if common for the whole organ);

<u>ovary</u> - (if one: position), shape, dimensions, indument, number of locules, placentation, <u>ovule(s)</u> - insertion, number, <u>style(s)</u> - position, number, color, length, indument, other features, <u>stigma(s)</u> - position, number, color, shape, dimensions, other features.

Infructescence(s) - as under inflorescences;

'fruiting' pedicel(s) - as under pedicel(s).

<u>Fruit</u> - type, color, shape, dimensions, surface, indument, <u>pericarp</u>, <u>exocarp</u>, <u>endocarp</u> - structure, color, dimensions;

<u>seed(s)</u> - number, color, shape, dimensions, surface, other features,

<u>aril</u>, etc., <u>testa</u> - structure, dimensions, <u>endosperm</u>, <u>embryo</u>, <u>cotyledons</u>, <u>radicle</u>, etc.

TECHNICAL INSTRUCTIONS FOR DESCRIPTIONS OF PTERIDOPHYTES

The following sequence of terms should be used, omitting and adding terms as necessary for brevity and precision. Non-underlined terms indicate optional features. Note how the description is broken into several sentences (Habit, Rhizome, Leaves or Fronds, Sori), and how various parts are separated by "," or ";".

Habit.

Rhizomes - type, diameter; indument.

Leaves - architecture, dromy, division;

<u>petioles</u> - length (absolute or in relation to the lamina), cross-section, color, indument;

<u>laminae</u> - shape, size, texture, color, number of pinna pairs, nature of leaf apex;

<u>rachises</u> - (may be combined with petioles, if the descriptions are similar or identical) cross-section, color, indument;

pinnae - shape, size, base, apex, number of pinnule pairs;

pinnules - shape, margins, venation,

segments- shape, margins.

Sori - position, shape, receptacular paraphyses;

indusia - persistence, shape, color;

sporangia - shape, setae;

spores - size, color;

chromosome number.

PRESENTATION

The treatment will be presented in the following sequence:
FAMILY: Number & NAME
by
Author(s)
The author's address will be given in a footnote.
Acknowledgments will be given in a footnote.
Description
Taxonomic discussion, if necessary
Distribution:
Subdivision:
LITERATURE Bremekamp, C.E.B. 1938. Acanthaceae. In A.A. Pulle, Flora of Suriname 4(2): 166-252.
KEY TO THE GENERA AND SUPRAGENERIC TAXA
1 Trees; flowers solitary; fruits winged
GENUS : Number & NAME Author, citation of first publication Type:
Synonyms Author, citation of first publication Type:
Description
Distribution:
(Ecology)
Subdivisions:
Economic uses:

V	ernacular names:	
N	otes:	
KE	EY TO THE SPECIES AND INFRASPECIFIC TAXA	
1	Leaves lanceolate; flowers red; fruits globose	
2	Inflorescence paniculate	
Species : Number and full name with author, citation of first publication; relevant references not mentioned in the Literature <i>Homotypic synonyms</i> and <i>basionym</i> Author, citation of first publication. Type:		
	Heterotypic synonyms their citation and their types.	
De	escription	
D	istribution:	
(E	cology)	
	pecimens examined: or elected specimens:	
Е	conomic uses:	
٧	ernacular names:	
Ν	otes:	

SUPPLEMENT A

Arrangement of countries for distribution, following Flora Neotropica:

I. Mexico, Central America

- 1. Mexico
- 2. Guatemala
- 3. Belize
- 4. Honduras (including Swan Islands)
- 5. El Salvador
- 6. Nicaragua
- 7. Costa Rica (including Cocos Island)
- 8. Panama (including Canal Zone as a subdivision)

II. West Indies

- 1. Bermuda
- 2. Bahama Archipelago (arranged alphabetically)
- 3. Cuba
- 4. Cayman Islands (Grand, Little, Brac)
- 5. Jamaica (subdivided by parishes)
- 6. Haiti (without subdivisions)
- 7. Dominican Republic (without subdivisions)
- 8. Puerto Rico (without subdivisions)
- 9. Virgin Islands (alphabetically)
- 10. Leeward Islands (alphabetically)
- 11. Windward Islands (Guadeloupe) [including La Desirade, Marie Galante and Les Saintes], Dominica, Martinique, St. Lucia, St. Vincent, The Grenadines, Grenada, Barbados
- 12. Southern Dutch Antilles (Curação, Aruba, Bonaire)

III. South America (and off-mainland islands as subdivisions of countries)

- 1. Colombia (including San Andres and Providencia).
- 2. Venezuela (including Margarita)
- 3. Trinidad, Tobago
- 4. Guyana
- 5. Suriname
- 6. French Guiana
- 7. Ecuador (including Galápagos)
- 8. Peru
- 9. Brazil
- 10. Bolivia
- 11. Chile
- 12. Paraguay
- 13. Argentina

SUPPLEMENT B

General information about some collectors and collections made in the Guianas (provided by J.C. Lindeman (U) and others) and suggestions follow below. Extensive information can be found in fascicles 1 and 2 of the Supplementary Series: R.C. Ek, Index to Guyana Plant Collectors and Index to Suriname Plant Collectors.

GUYANA

Collections by some collectors, e.g. D.B. Fanshawe, might best be given with double reference, because several collections were renumbered under the Forestry Department numbering system. Example:

Fanshawe, D.B., 120 = FD 3650

For the Schomburgk numbers see J.A.C. van Dam, The Guyanan Plant Collections of Robert and Richard Schomburgk, Flora of the Guianas, Supplementary Series fasc. 3, 2002.

In the Flora, Schomburgk collections should be cited in the following manner:

Schomburgk, 460 (10-14a) [when it is uncertain who collected]

Schomburgk, Ri., 173 (6-6b); 1722 (6-4b) [when no corresponding Robert number is present]

Schomburgk, Ro., ser. I, 914 (11-14); ser. II, 548 = Ri. 852 (11-30)

SURINAME

The numbering system of the Forest Service of Suriname is very complicated as the abbreviations changed several times.

BW - From 1909 to 1926 the Forest Service was called Boschwezen (BW). Collection numbers from 1 to 7238 were written in red ink on the labels. All names and provisional field numbers should be discarded, and no names of collectors usually need to be added. Citation should be as follows:

BW, 78 (10-4); 5316 (11-16)

An exception in the BW series should be made for two expeditions to the interior: G. Stahel & J.W. Gonggrijp's expedition to Emma Range (Emma Keten Exp. of 1922) and G. Stahel's trip to Wilhelmina Mts. These collections are, in part, also included in the BW series and then should be given with a double citation. Stahel started numbering on each of his trips. Thus, it is necessary to add the expedition after the collector's name, also when no BW number was given. Example:

Stahel, G. & J. W. Gonggrijp, Emma Exp., 312 (11-27); 290 = BW 5831 (7-1) Stahel, G., Wilhelmina Exp., 137 (11-27); 290 = BW 7385

BBS - After World War II a new Bosbeheer Suriname (BBS) was established. Numbers 1 to 346 and a few higher numbers to 3041 were used from 1947 to 1950. Example:

BBS, 162 (3-11); 900 (5-16)

LBB - In 1950 the Forest Service name was changed to Lands Bosbeheer (LBB), with collection numbers starting at 8089 (a continuation of the J.P. Schulz series) up to about 16000. Often the labels lack the LBB code. Names of local personnel need not be given: those of visiting botanists may be cited under their own name and LBB should precede that number. Examples:

LBB, 11192 (6-2); 14805 (11-57) Maas, P.J.M. *et al.*, LBB 10692 (4-4)

UVS - In 1981 the Forest Service was transferred to the University of Suriname (UVS) with collection numbers beginning about 16000. Example:

UVS, 16750 (12-4)

In the National Herbarium at the University of Suriname the herbaria of the Agricultural Experiment Station and CELOS were also later incorporated. J.C. Lindeman made several collecting trips in Suriname, after 1952 accompanied by various colleagues. Numbering started with 1 for almost every expedition. Therefore, at least the second collector should always be cited.

FRENCH GUIANA

For two collectors, Oldeman and de Granville, there are 6 number series: Oldeman 1011 to 3340; de Granville 1 to 10000+; Oldeman T-1 to T-1002 and de Granville T-1003 to T-1206; Oldeman BC-1 to BC-34 and de Granville BC-35 to BC-104; Oldeman B-1 to B-4355 and de Granville B-3630 to B-5525 (the collections between B-3630 and B-4355 can be attributed to either Oldeman or de Granville); and de Granville C-1 to C-170.

In the list of collections studied all numbers should be in a single sequence by the collector, but the letter prefix (if there is one) must be added to distinguish the collections of different series. Example:

Granville, J.J. de, BC-40 (3-6); C-152 (10-5); 727 (3-7); T-1005, B-4870 (7-28).