Machado's Portuguese Mosses
(Continued from p.1)

distribution of 28 other taxa not represented by specimens in his collection. These records were submitted to the same distributional and phytogeographical studies as the 272 taxa referred to above.

After taxonomic revisions 126 specimens were found to have been misidentified. Of these 67 were included in taxa already represented in the collection; 47 were included in 23 taxa which did not belong to the collection until then; and 12 were included in 7 taxa new to the Portuguese bryoflora, i.e. *Pogonatum urnigerum*, *Didymodon luridus* var. *nicholsonii*, *Leptodontium flexifolium*, *Lescuria incurvata*, *Grimmia alpestris*, *Hylocomium brevirostre* and *Plagiothecium succulentum*. Other consequences of the misidentifiction of these specimens are that: 5 taxa were excluded from the collection, persisting only in Machado's literature observations which did not agree with the location of the material excluded; 6 other taxa were also excluded from the collection but as their location was coincidental with the location of Machado's bibliographic references, these should not be considered; and finally, 3 taxa had to be excluded altogether from the Portuguese bryoflora, i.e. *Plagiomnium ellipticum*, *Cratoneuron filicinum* var. *falax* and *Lescurea patens*.

Studies of the distribution and phytogeogrpahy of these taxa also provided interesting results. A few areas could be quite correctly characterized by the predominant occurrence of some elements while others could not, either because the taxa studied were collected mostly in regions with different characteristics or because the regions remain too poorly explored.

This work was presented as my master degree thesis and is now available for further studies. All its content has been computerized and can be used as a data base so it will not be difficult to find any information anyone might need. Though limited in itself it has proved valuable in indicating, once again, (i) the importance of revising old collections in order to complete the national catalogue, and to continue the mapping of, Portuguese mosses; (ii) the areas where thorough exploration is needed and (iii) those groups that need to be studied accurately and revised taxonomically. Furthermore, the results can be integrated into a more general plan of updating the catalogue of Iberian mosses and of mapping their distribution, one of the major goals of Iberian bryologists.

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Software library continued from p.4.

Spreadsheet 22, 66
Statistics 5, 19, 42, 72-73
Taxonomy 18, 36, 54-56, 62-63
Text files 20, 36, 68
Utilities 27, 52, 71, 79, 87, 88, 89, 90, 92, 93, 94, 95
Word processors 7, 9, 59, 67, 91

Latest version

The latest version of this list (which includes all the changes and additions listed above) is Version 3 (March 23, 1988), a copy of which can be obtained from:

Dr. Jan-Peter Frahm, Universität Duisburg, Fachbereich 6, Botanik, Postfach 101629, D 4100 Duisburg, F.R. Germany.

Nomenclature at Berlin

by

Gea Zijlstra

The Nomenclature Section of the XIV International Botanical Congress in Berlin, July 1987, had to decide upon 334 proposals to amend the Code. In this article, a few of the most important decisions are reported, along with some comments, where appropriate.

Typification

An important decision was to abolish the Guide for the determination of types, and to incorporate most of its contents under Articles 7 and 8. Several more additions to these Articles have been accepted, the most important being:

1. Clear decisions have been made with respect to the possibility of having descriptions and/or illustrations as holotypes or lectotypes: descriptions are definitely outlawed as potential types. A logical decision, if you wish to retain the concept of neotypification. (To allow that a description may be a type, is a hang-over from the old circumscription method.)

A footnote defining "original material has been added at its first mention in Art. 7.4:

"Original material: specimens or illustrations examined by an author prior to publication of a name and used by him/her to establish the concept of the taxon as presented in the protologue."

Moreover, one element of the Guide has not been transferred to Articles 7-8: T.4.(b): "A specimen is to be given preference over pre/Linnaean or other cited descriptions or illustrations when lectotypes of names of species or infraspecific taxa are designated (see Art. 9.3)."

Conclusion: an illustration is just as well available as a specimen, to be chosen as the lectotype of a name.

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A contribution to the Nomenclature Column Edited by G. Zijlstra.

Nomenclature at Berlin (Continued from p.5)

2. The possibility for neotypification has been enlarged, through acceptance of Prop. F to Art. 7. The essential element of this is appended in Art. 7 (along with three additional changes in Arts. 7 and 8.)

"When a holotype or a previously designated lectotype has been lost or destroyed and it can be shown that all the other original material differs taxonomically from the destroyed type, a neotype may be selected to preserve the usage established by the previous typification, as an exception to Arts. 7.4 and 7.8."

3. Berlin had to cope with a lot of proposals under Arts. 8 and 9. The big majority of them have been rejected and referred to a new Special Committee on Lecotypification. This implies that the current problems with the interpretation of Art. 8.1 (how to deal with choices that were based on a largely mechanical method of selection) have not been resolved. A few of the rejected (eventually partly) solutions are worth mentioning, since they can be expected to be brought up again in Tokyo:

a) to introduce a 1935 starting point for lectotpyification (Art. 8, Prop. A), was rejected a.o. because only its effect on the typification of generic names had been studied to some degree. Its possible effect on species names is completely unknown. This will be studied in the next few years, especially for Linnaean species:

b) to delete the words "or that it was based on a largely mechanical method of selection" (Art. 8, Prop. H);

c) to incorporate a Note, to have the so-called "residue method" formally accepted as lectotypification, under restricted conditions (Art. 8. Prop. P).

Even though almost all proposals under Art. 8 have been rejected and referred to the new Committee, the proposal to add a new Art. 8.2. has been accepted:

"For purposes of priority under Art. 8.1, designation of a lectotype or a neotype is achieved only if the designation is definitely accepted by the typifying author, and if the lectotype (or neotype) element is clearly indicated by direct citation including the term 'type' or an equivalent."

Art. 37, treating the requirement of indication of a holotype in the context of valid publication from 1958 on, received some rewording and several additions:

1. Since family names are typified automatically, they need not be mentioned under Art. 37; therefore "family" was replaced by "genus".

2. The phrase "nomenclatural type" was replaced by "holotype of the name" (to stop taxonomists who think that the indication of syntypes meets the requirements of Art. 37).

3. Two Notes have been added, to explain what may be assumed to be an indication of the holotype even without a direct statement that this is so: for name of (subdivisions of) genera, the inclusion of a single type of a names suffices; for names of lower ranks, citation of a single specimen or illustration is enough. Mere citation of a locality without further reference to a herbarium specimen, however, does not constitute indication of a holotype (Art. 37, Props. M (amended) and D).

4. From 1 Jan. 1990 onwards, the requirements will be more sever, by acceptance of Props. J and G (amended):

"On or after 1 Jan. 1990 for purposes of valid publication indication of the holotype must include explicit use of the word 'holotypus' or 'typus', their abbreviation or their direct equivalent."

"On or after 1 Jan. 1990, when the nomenclatural type of a taxon at or below the rank of species is a specimen, the herbarium or other institution in which a type specimen is permanently conserved must be stated. Such a statement of an herbarium or other institution may be in an abbreviated form such as recommended in Index Herbariorum or similar work."

Conservation of specific names

In Sydney the possibility of conservation of specific names was accepted, restricted "to species of major economic importance". For all other specific names, rejection was the only method to solve the problems that arise as soon as one detects that the type of a name does not belong to the taxon for which the name is commonly used.

The procedure to have a name conserved does not take more time that the procedure to have a name rejected. After heated discussions, amendations of the proposals and votes close to the critical boundary of 60% necessary to have a proposal accepted (60.1%; 59.7%; 63.4%), it was decided that the possibility of conserving specific names should be enlarged. To enable this, the following additions have been made:

In Art. 14.1, the present 14.1 was numbered 14.1(a) and 14.1(b) was added:

"A name may also be conserved in cases provided for by Art. 69."

In Art. 69 two Notes were added:

"A name of a genus or species that has been widely and persistently used for a taxon or taxa not including its type and would be the correct name for another taxon, may also be conserved or rejected under Art. 14.1(b)."

"The name proposed for conservation under Art. 14.1(b) may be either the name which has been widely and persistently misapplied or another against which the latter is rejected."

Moreover, the following Recommendation has been accepted:

"A name that has been widely and persistently used for a taxon or taxa not including its type should not be used in a sense that conflicts with current usage unless and until a proposal to dispose of it under Art. 69 has been submitted and rejected.

"Incidental mention"

In Art. 34, the efforts to delete 34.1(c) and 34.3 finally had effect. Thus the argument that a name was not validly published because it was merely mentioned incidentally, cannot be used any longer.

The use of "in" and "ex"

The Recommendations 46D and E, on the use of "in" and "ex" in the citation of authors' names, describe a correct procedure, departures from which are necessarily incorrect. Therefore it was decided that they should receive the status of rules. To transfer them into Articles, a slight rewording was necessary (Props. A and B to Rec. 46D, and Prop. A to Rec. 46E accepted).

Besides the Special Committee on Lectotypification, mentioned above already, five more new Special Committees have been appointed. A few of them are worth mentioning here:

Registration

Almost all proposals concerning effective publication, registration of plant names, as well as the compilation of a list of approved publications, were rejected. After extensive discussions, with amendments of proposals followed by delay of the decisions until the

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Nomenclature at Berlin (Continued)

following day, finally agreement (i.e. a more than 60% majority vote) could be found to accept the following proposals:

"A Special Committee on Registration to be set up to report to the XV IBC."

"That the Special Committee on Registration be given a mandate to determine the desirability and feasibility, and, if appropriate, to actively investigate, negotiate and test the structures. procedures and mechanisms, including finance, required for the implementation of a system for the registration of new plant names."

Retroactivity

Another hot issue on which Berlin could not yet decide (even though some proposals were accepted/rejected already!) was retroactivity. In my opinion, two themes are under consideration here:

1. the retroactivity of lectotypification;
2. the retroactivity of Appendices II and III of the Code.

To resolve the question "is lectotypification retroactive?" and related questions, Berlin established a Special Committee on Retroactivity, Superfluity and Illegitimacy.

In a future number of the Bryological Times I shall discuss this further.

In the final session nomina conservanda and rejicienda proposita were approved as recommended by the General Committee. This implies that the names in the report of the Committee for Bryophyta (Taxon, 36: 429-431. May 1987) have now come through the final stage of the procedure, and will appear in App. III of the Berlin Code:

Pellia Raddi 1818, nom. cons. against *Merkia* Borckhausen 1792, nom. rej.;
Calypogeia Raddi 1818, orth. cons.;
Lopholejeunea (Spruce) Schiffner 1893, nom. cons. against *Lopho-Lejeunea* Stephani 1890, nom. rej.;
Acrolejeunea (Spruce) Schiffner 1893, nom. cons. against *Acro-Lejeunea* Stephani 1890, nom. rej.;
Trachylejeunea (Spruce) Schiffner 1893, nom. cons. against *Trachylejeunea* Stephani 1889, nom. rej..

In App. II, Lophoziaceae will be deleted.

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IAB sponsored

COMPUTER TECHNIQUES WORKSHOP

MONT RIGI, BELGIUM, SPRING 1989.

Preliminary notice

As a result of the great interest shown in the computer techniques section of the Bryological Methods Workshop in Mainz, and also the successful introduction of the IAB Software Library, a Computer Techniques Workshop is to be held at the University of Liége's Mont Rigi field station, in the Belgian Ardennes, in spring 1989.

The meeting is intended for all levels of experience from beginner to experienced user and specialist. All participants will be able to register their own particular interests and level of experience on the sheet coming with the registration form. The meeting will cover, on three levels:

- discussions	-	demonstrations of computer applications
- seminars	-	practical work with computers and equipment.

Level I

Demonstrations and seminars on computer applications in bryology:
- demonstrations of commercial programs (word processors, databases, spreadsheets, statistics/calculation programs, integrated packages, graphics (CAD and Paint) programs, graphical environment programs). A specific list of the packages available for demonstration will be given in the final programme.
- demonstrations of programs from the IAB Software Library. Programs can be tested and copied free.
- special bryological applications, such as label production, herbarium management.
- special topics such as computer and microscope; computer-aided microscopic measurement; computer and video, digitising and scanning of illustrations.

Level II

Development of standards for text and data exchange. Computer users are primarily producers of data in two formats - text and data files - by producing written text, bibliographies, addresses or computerised illustrations, for instance. Once something has been written on a computer, ideally it should never need retyping, providing there are standards for storing and merging data between different pieces of hardware and software. These sessions will look at standards for the exchange of bibliographies, herbarium records, taxonomic descriptions, graphics files, and the merging and extension of existing data files, via standard data structures and content.

Leve III

Specialist solutions. Programming in BASIC, PASCAL, FORTH and dBase. Software interfaces, conversion of different disk formats.

The meeting is primarily aimed at MS-DOS users, and it is expected that all demonstrations and examples will be MS-DOS based - but users of Apple, Atari, CP/M and Commodore 64/128 should also benefit.

It is hoped to publish all papers presented as well as the results of discussions, and details of the demonstrations. The form of this publication has yet to be decided.The final program will depend on the availability of particular expertise and the interests of participants. For this reason, if you are interested in attending, please write to:

Dr. J.-P. Frahm, Universität Duisburg, Fachbereich 6, Botanik, Postfach 10 16 29, D-4100 Duisburg, Federal Republic of Germany.

stating your specific interests and experience. This will allow the published program to reflect as accurately as possible the needs of those attending.

The exact date of the meeting will be announced in the Bryological Times as soon as it is known. A second notice will be published in these columns later .