

# TDWG Newsletter

International Working Group on Taxonomic Databases for Plant Sciences

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## Note des éditeurs

TDWG meeting number 4 (St. Louis, 4-6 October 1988) has been a success!

Round table discussions were most interesting, certainly fruitful but also laborious at times; chairing debates involving 45 participants is like a feat of strength.

A new time-table was experienced this year alternating subgroup meetings and plenary sessions. This is a good formula, still not the Panacea. Concurrent sessions were held keeping some from attending another meeting of interest. As a consequence, time was wasted in the plenary sessions debating items already discussed within the small working groups.

We certainly don't want to limit the number of TDWG's participants. Should we spend more than two and a half days a year for the meeting? Should we do most of the work within the small committees?

Anyway the maximum amount of work amateurs can produce has perhaps been reached already. Do we need to become professional TDWG players?

## TDWG and RSF

by J.-M. Mascherpa

As in 1985 the need for an international scheme to standardize botanical data arose, the Conservatoire et Jardin botanique de la Ville de Genève (CJB) were the

very first to comply favorably to such a concept. An informal meeting was held at that time in Geneva where the major botanical Institutions took the decision to create what we call now TDWG.

At the same time, the leaders of the various Swiss floristic projects began to be aware of the benefit of getting together to study the floristics of the different parts of the country. One also felt the need to carry out a system to gather data in a more convenient way than in the one-century old "Fortschritte der Schweizer Floristic". Again, botanists met to debate whether a common database on national level would really be useful.

The whole discussion led to a project called "Réseau Suisse de Floristique" (RSF) which was proposed for funding to the National Fund for Scientific Research (FNRS) and supported by the CJB, the Botanical Institutions of Berne, Lausanne, Neuchâtel and of course the Centre Horticole de Lullier. The main purpose of this project is to create a computerized tool to make work easier for the professional botanists as well as for amateurs. It is worked out on micro-computers to be dispatched properly and open to all as a distributed database.

It stands to reason that the coincidence of the birth of these scientific projects (TDWG & RSF) would lead to a symbiosis between them. As a matter of fact, it was imperative to fix some rules when defining the items and the databases, if we wanted to be successful in starting a software designed to collect data and share the information. That is exactly the final goal of the TDWG.

We are very glad in Geneva that the ideas of the concept developed by some "dreamer" in 1985 have such a great success and that the botanic community of the entire world, not only participates to the meetings, but also uses locally for their own projects what went through the mill of the working groups.

Eventually, based on the good experience we had in Geneva in applying TDWG resolutions for the RSF, we encourage everyone to follow these trends of thoughts and to promote a large use of the international TDWG rules.

## What's in a name? TDWG sprouts synonyms?

by F. A. Bisby

The *ad hoc* group started by Gilbert Bocquet and Vernon Heywood in 1985 called itself TDWG (Taxonomic Databases Working Group). When "For Plant Sciences" was added to the full name in 1986 the original acronym continued in use: its very oddity and irrelevant feel ensuring survival. Then at the St.-Louis meeting we agreed not only a constitution but also a new name. Alas, it was one that reversed parts of the original - we are now the International Working Group on Taxonomic Databases for Plant Sciences. So what will become of TDWG, or indeed the TDWG Newsletter? My guess is that IWGTDPS is so awful that TDWG will become a kind of *acronym conservandum*! Shall we go on using TDWG as before?



## Bibliographic and nomenclatural indexing of the fungi

by P. M. Kirk

The *Bibliography of Systematic Mycology* (BSM) and the *Index of Fungi* (IF) are now back on schedule after a delay of just over 15 months in the printing of the July 1987 issues. Production of these twice-yearly publications by the CAB International Mycological Institute, was converted from a traditional method to a computerized production system in January 1987. The production system involves the generation, from the datafiles produced by the CABI data entry system, of the main alphabetical listings with some embedded typesetting commands. These files are then passed through DECSet, our main journal typesetting software, which adds further typesetting commands and takes care of other things such as page formatting and makeup, running heads, numbering etc. This batch process writes to a tape which drives a typesetting machine to produce bromides which are the basis of an offset process to print the two publications.

The BSM lists, with full bibliographic details, papers, books and other publications on all aspects of the taxonomy of fungi whilst the IF lists, with full bibliographic and other details, names of fungi, at various ranks, newly introduced or where nomenclatural changes or pronouncements have been made. In addition to the bibliographic information the BSM contains an author index and a subject index (by generic names) for the included citations. This latter index became a practical proposition only after the move over to a computerized production system, whereby indexes from key words (generic names) are easily generated; this greatly increases the usefulness of the citations to the user.

In the case of the IF, computerization provided the opportunity to increase the coverage: all ranks from family through infrafamilial, genus, infrageneric, species and infraspecific, are now covered with

regard to new taxa and the new names and new combinations. Two additional indexes are produced as well as the main alphabetical listing. These are a host and substratum index for all new taxa and new names at species and infraspecific rank, and an epithet and name index for specific, infraspecific and infrageneric epithets and infrafamilial names.

We have thoroughly integrated the data capture for these two publications and reduced considerably duplication of data within the entry system. A conversion programme, written by CABI Systems Division, manipulates the raw data such that when the individual records are transferred to the main database they are complete and fully searchable. Although the software used (BASIS) is not true database management system but a text retrieval system for formatted data we will be exploring the possibilities of converting the file structure to a fully relational system in the near future. In addition, we will be further refining the data entry system with the inclusion of further validation routines.

As the database is maintained on the CABI Vax Cluster which is linked to the PSN, it can be made available online to potential users by issuing passwords, but a charge would be made for this. New records are added every two weeks and the data is, therefore, as up to date as is possible.

We have recently started to enter the backlog of data from the various nomenclatural and bibliographic listings already published. Whilst this will depend on the availability of resources we have the IF records from 1980 to date already keyboarded and awaiting final editing. Further, all the family names proposed for the fungi have been incorporated into the database; this listing is being published as a supplement to the IF. The BSM cites over 2000 titles per year and the IF

includes around 3000 entries per year. This volume of work is achieved with only two part time staff and two scientific editors. CMI is committed to providing as near as possible a comprehensive world bibliographic and nomenclatural information system for workers engaged in the study of fungal systematics.

## TDWG affiliates to IUBS

by F. A. Bisby

As instructed by the Edinburgh meeting (TDWG 3, 1987) the Executive Committee has been actively exploring the possibilities for affiliation to both IUBS (International Union of Biological Sciences) and IAPT (International Association for Plant Taxonomy). The first of these has to come to fruition and TDWG was formally accepted as a Commission of IUBS at its 23rd General Assembly (16-24 October 1988).

Whilst TDWG appears to have functioned satisfactorily as an *ad hoc* organization, the new status gives us an official presence at IUBS and the opportunity to report our work, and indeed to serve, a wider community of biologists.

圖 植 圖  
陳 胡  
煥 先  
鑄 鑄  
編 纂  
植 植

Communication from P. Kirk to the editors.

(Printing extended ASCII characters is a problem but chinese ... no big deal.. The editors.)

## Type registers: an opinion

by Hervé M. Burdet

During TDWG 4 in St.-Louis, a meeting of the "TDWG subgroup on type and lectotypification registers" was held and views were exchanged on the form a "Type Specimen Register" could take and what needs it should meet. The opinion was expressed that such a register should be "specimen oriented", that the inclusion of bibliographic citations is therefore entirely superfluous and that the main thing is the location of the specimens.

That opinion is probably based on the frustration of taxonomists exasperated by notable difficulties encountered when trying to locate type specimens. I strongly disagree with the idea that bibliographic citations are superfluous in type registers; on the contrary they are the very core of a type designation. One should remember that a type specimen is not just any specimen among others that happens to be a type. No specimen becomes a type because of its type-label or because of its location in a type-collection. A specimen only qualifies as a type because it is cited, indicated or implied as such in a diagnostic bibliographic reference where a (new) name is coined. No type exists without the bibliographic reference that creates it. The exact bibliographic reference of a name with its date of publication is the one and only link between a name and what it is to be used for, expressed in the form of a standard specimen called type. A type register listing names and locations without bibliographic references will not register any types. It would be a mere allusion for the possible location of type material for given names. A type register with names, locations and no bibliographic references would be as useless as a telephone directory without telephone numbers.

## Highlights of TDWG 4 at St. Louis

by F. A. Bisby

We are very grateful to Prof. P.H. Raven, director of Missouri Botanical Garden for hosting our meeting at St. Louis, and to Marshall Crosby and Barbara Mack in particular for the excellent organization. We were made warmly welcome with excellent meeting rooms and a delightful dinner in the grounds of the Garden.

Much of the meeting involved careful debate, discussion and editing of four TDWG standards. There were adopted in a final session:

- 1) Geographical Units Recording Plant Distributions in Databases (S. Hollis & R.K. Brummitt).
- 2) Plant Occurrence and Categorization Scheme (POSS) (C. Leon, D. Mackinder, P. Rooney & H. Synge).
- 3) Standard for Plant Names in Databases (F. A. Bisby).
- 4) DELTA Format for Taxonomic Descriptions (M. J. Dallwitz).

The first three of these should be published in the TDWG Standards series during 1989. The Delta format is already published - see "User's Guide to the DELTA System (Ed. 3)".

Bob Allkin led discussions on the generalized international transfer format for taxonomic data; Ellen Farr chaired the meeting on type and lectotypification registers; and Rusty Russell developed ideas on a centralized data dictionary.

The Symposium planning subgroup decided to go ahead with the 3-day Symposium "Designs for a Global Plant Information System" to be held in the summer of 1990.

In the final plenary session the four standards were adopted; the subgroups reported back on their discussions; there were reports of activities established at previous meetings; and some ideas for new items were raised. Reports of activities started earlier included work on name-authors and abbreviations (R.K. Brummitt), book and journal titles (M. Crosby & R.W. Kiger), and a directory of taxonomic databases (R.W. Kiger). New items brought the focus onto the need for standard systems for describing life forms, ethnobotany and natural products, and environmental characteristics such as habitats, soil and landscape.

The later part of the session was taken up with administrative matters reported elsewhere - adoption of the constitution and the election of the officers.

## TDWG becomes a subscription organization

Letters will be going out next month inviting institutions and individuals to take out subscriptions to become members of TDWG for 1989.

It was agreed in St. Louis that institutional members should subscribe 150 US\$, and individual members \$50. The funds created will be used principally to provide secretariat, printing and mailing costs at Southampton. Rusty Russell was elected treasurer: he suggested payments are made to his address in US dollars.



## Short news

G. F. Russell (Dpt of Botany, Smithsonian Inst.) attended an interesting meeting (October 14, 1988) of a group whose aim is to coordinate the development of biological databases.

"The Matrix of Biological Knowledge" (Bio-Matrix) proposal addresses the need to organize and intelligently access the wealth of biomedical information that confronts researchers. The Bio-Matrix group works on topics very similar to TDWG's concerns: standards within database and interface software, communication, system architecture, coordination of databases and research projects.

While the current composition of the group is North American they have expressed a sincere interest in attracting international involvement and are specifically pleased to know that we are operating parallel to them. Rusty intends to maintain a close relationship with the Bio-Matrix group.

Still no formal news about TDWG meeting number 5 (1989). We heard something about Berlin...

TDWG Newsletter is becoming a big hit! The first mailing list was about 80 names. Following the first issue 20 new subscribers showed up.

If you want to go on reading the Newsletter you will have to write...

Please send your (short) contributions before April 15th.

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