



INTERNATIONAL Tree-Ring Data Bank NEWSLETTER

VOLUME 2, NUMBER 1

SPRING, 1977

FROM THE CHAIRMAN'S DESK

In 1977 we dendrochronologists find ourselves becoming a highly relevant group of environmental scientists. However, instead of seeking the many common elements and unique opportunities and methods that bring us together, we sometimes stress our individual differences separating ourselves into small, ineffectual units. The sharpest division may be between the archaeological and historical daters and those interested in reconstructing past environments. There also seem to be distinct national groups and methodological schools. In addition, we sometimes identify one another more with subdivisions such as dendroarchaeology, dendroclimatology, dendrohydrology, dendrogeomorphology, and xylodendrochronology than with the mother field, dendrochronology.

I would like to assert my conviction that the many elements we all have in common far outweigh our differences. What is most important is that we are all a part of one field, dendrochronology, the use of tree-ring variations to date the annual growth layers. I am also convinced that when we focus on the divisions among us, it is often counterproductive and perhaps even detrimental to the continued growth of the science. While honest differences will and should always exist among us, I believe the time has come for us to begin identifying the many common principles, concepts, and practices that can unite us and which will increase the productivity and usefulness of our chosen field.

It is the hope of the International Tree-Ring Data Bank Committee that the Data Bank can serve as one of the unifying forces among dendrochronologists throughout the world. In order to assure its international scope, the membership of the guiding committee is composed of scientists in four different countries. The organization of the Data Bank was structured to insure its independence from both the Tree-Ring Society and the Laboratory of Tree-Ring Research, and a modest amount of funding has been obtained from United States sources (without obligating the contributors) to enable us to take the first steps toward the fulfillment of our goals. Thus, it is especially important and urgent during this early developmental period that all potential contributors and users of the Data Bank participate with us in its development. It is with this intent in mind that we have prepared this *Newsletter*. We urgently need assistance from all parts of the dendrochronological community, not only in the form of data contributions, but also as ideas on how the Data Bank can best serve the science while giving the contributors the necessary protection and the users the information they need.

We are archiving the dated ring-width measurements. Shouldn't we be making some kind of universal standardization at least for the better data sets?

(Continued on page 2)

From the Chairman's Desk, Cont.

At the moment, our greatest efforts are focused upon getting the individual ring data and the appropriate site information. After a careful review of the progress to date, it appeared that our original requirements of at least 10 trees per site and two replications per tree were too limiting at this point in time. Very few contributions were being made simply because they did not meet all the desired specifications. Although we still hope to obtain samples of this quality, we have initiated another class of data allowing shorter chronologies based upon smaller numbers of trees. This class (which may be temporary) will enable us to start with the materials already collected. Each set of data will be assigned to the appropriate class, and we hope that in the future more and more contributions will fall in the higher quality category. Sometime in the future when we are all collecting the large samples of high-quality data, we might wish to discontinue accepting new materials in this second class. The matter will be discussed at the next meeting of the Data Bank Committee.

However, it is important that we consider carefully what our future directions should be. I plan to call an open meeting of the International Data Bank Committee at the INQUA meeting in Birmingham in August, 1977, to discuss these matters, a meeting to which you are all invited. It would be nice if there were some opportunity for discussion at the Dendrochronology Symposium in Greenwich, but at present, nothing has been scheduled for that event. However, I will be there to meet and discuss matters with those interested. I also invite you to express your wishes and needs in writing. In the next *Newsletter* we will attempt to include any relevant comments we receive and we shall attempt to cover the points at the meeting in hopes of starting a genuine dialogue among us all. If we can achieve some measure of communication and understanding, I firmly believe we will find that we have much to learn from one another and there is much more to unite us than to divide us.

From the Chairman's Desk, Cont.

I would also like to personally thank all of you who have made contributions and ask for your continued support in terms of any new valid and well-dated materials. The present chronology material is a small but very important and significant start. Because of your recent response, we are in a strong position to ask for continued funding. Now if we can establish a useful, growing dialogue, a spirit of cooperation and unity among us, I am confident that we can move ahead in our various sub-disciplines, united and strengthened by the fact that we are all dendrochronologists sharing our basic data, the synchrony in growth rings, to solve a variety of problems around the world.

--Harold C. Fritts

CALENDAR

JULY 11-14, 1977: INTERNATIONAL SYMPOSIUM ON DENDROCHRONOLOGY IN NORTHERN EUROPE; LONDON, ENGLAND

AUGUST 16-24, 1977: TENTH INQUA CONGRESS, UNIVERSITY OF BIRMINGHAM, ENGLAND

AUTUMN, 1977: VOLUME 2, NUMBER 2, ITRDB NEWSLETTER

UPCOMING EVENTS

Two meetings of particular interest to scientists engaged in dendrochronological research will take place during the summer of 1977. The first is the International Symposium on Dendrochronology in Northern Europe to be held at the National Maritime Museum, Greenwich, London from July 11 to July 14, 1977. This will be the first dendrochronological regional conference in Europe. As

(Continued on page 3)

Upcoming Events, Cont.

stated in the advance circular: "The purpose is to focus attention on progress in the temperate (transalpine) part of Europe. The symposium should be of interest to laymen as well as those engaged professionally in the field." Further information is available from:

The Organizing Secretary,
Symposium on Dendrochronology in Northern
Europe
National Maritime Museum,
Greenwich, London
SE10 9NF, ENGLAND

The second meeting will take place during the Tenth INQUA Congress at the University of Birmingham, England, from August 16-24, 1977. At this time special symposia on dendrochronology and paleoclimatology are planned for all interested participants. There will be discussions about the International Tree-Ring Data Bank, and the Committee will hold a planning session to which all interested persons are invited. This will be an opportunity to raise questions about the Data Bank as well as to express opinions or to make contributions. Site Information Sheets and other data regarding the requirements for acceptance of materials into the Data Bank will also be available at that time.

SCHWEINGRUBER GIVES 12 SITES

Fritz H. Schweingruber of the Swiss Forest Research Institute, Birmensdorf, Switzerland, visited H. C. Fritts at the Laboratory of Tree-Ring Research from August 20 to September 30, 1976. The purpose of his visit was to standardize his tree-ring materials from Switzerland and to use them to reconstruct climate. Materials provided by Schweingruber included tree-ring data from six locations consisting of 37 subsites (with differences in elevation and species). The five parameters measured on each ring were earlywood, latewood, minimum density, maximum density, and total ring width. The climatic data were from six weather stations. A total of 185 different chronologies were processed, and numerous response functions were obtained. The climatic reconstructions were highly significant

Swiss Sites, Cont.

for four stations using canonical analysis and six tree-ring sites. Maximum density was by far the best predictor of climate, but the best results were obtained by using five parameters to reconstruct climate. Schweingruber contributed 12 of the best sites used in the study to the International Tree-Ring Data Bank. This represents the first contribution of data other than ring width to the Data Bank.

Der revidierte Fundort-Fragebogen der Internationalen Jahrring Datenbank ist erhältlich auch in deutscher Sprache auf Ersuchen beim Tree-Ring Laboratory.

FROM THE EDITOR

With this issue the editor announces the intention to publish the Newsletter twice a year (spring and autumn). The purpose of the Newsletter is to serve as a communication link for individuals with interest and experience in the field of dendrochronology. News to be reported will include information pertaining to the requirements for data entry, lists of current holdings, methods and costs involved in submitting and retrieving data, announcements of meetings and publications, and other items of interest to participating scientists.

It is hoped that readers will take advantage of this form of communication and report any news related to the Data Bank. Letters to the editor are also welcome. The editor reserves the right to select, delete, and correct copy submitted for publication. All letters to the editor must be signed and include the address of the sender. Articles and letters should be sent to:

*Editor, ITRDB Newsletter
Laboratory of Tree-Ring Research
University of Arizona
Tucson, Arizona 85721
U. S. A.*

SITE INFORMATION SHEET REVISED

In an attempt to streamline the procedures for submitting materials to the Data Bank, the Site Information Sheet originally prepared in 1974 has been revised and simplified. The amount of information which is now required for each site has been reduced to include only the most essential information, and the form itself has been reorganized. It is hoped that this will encourage more scientists to submit their data and will also speed up the processing of the materials once they are received by the Data Bank. A copy of the revised Site Information Sheet is enclosed, and additional copies may be obtained by writing:

Manager, International Tree-Ring
Data Bank
Laboratory of Tree-Ring Research
University of Arizona
Tucson, Arizona 85721
U.S.A.

Photocopies of the enclosed Site Information Sheet may also be used to submit data.

Submissions for the Autumn issue of the *Newsletter* must be received by the Editor (address on page 10) by August 31, 1977.

BERND BECKER VISITS TREE-RING LABORATORY

Bernd Becker of the Universität Hohenheim, Stuttgart, Federal Republic of Germany, visited the Laboratory of Tree-Ring Research in Tucson, Arizona in July, 1976. While at the Laboratory, Dr. Becker, who is a member of the International Tree-Ring Data Bank Committee, conferred with Harold C. Fritts, Chairman of the ITRDB Committee, regarding revision and simplification of the current policies governing the Data Bank. Dr. Becker visited the Laboratory following the Ninth International Radiocarbon Conference held in Los Angeles and San Diego, California. (For further information on the revised procedures regarding acceptance of materials in the International Data Bank, see Page 4, column 2.)

La version révisée du questionnaire de la localité est disponible maintenant en français sur demande au Tree-Ring Laboratory.

DATA ENTRY REQUIREMENTS AMENDED

A careful review of both the current Data Bank holdings and numerous potential contributions indicated that a new classification of data was essential, at least for the time being, to enable the Data Bank to get started. Therefore, with this issue of the *Newsletter*, the International Tree-Ring Data Bank announces a new classification of data which will allow for smaller samples with single replicated ring width (or other parameters) from three or more trees and with total lengths of less than 100 years. Minimum requirements for acceptance of materials into this classification (Class B) are: (1) original ring-width measurements must be included with each contribution; (2) there must be a minimum of three trees per species and site (although larger samples are encouraged); (3) all materials must be absolutely crossdated; and (4) a completed Site Information Sheet (including signature) must accompany each site.

It should be emphasized, however, that the original requirements for the acceptance of materials in Class A as established at the International Workshop in Dendroclimatology in 1974 have not been discontinued, and scientists whose materials meet these standards are urged to submit them. Additional requirements for materials to be entered into this classification are: (1) ring measurements must have a minimum length of 100 years; and (2) there must be a minimum number of 10 trees per species and site with two measured radii per tree. Since the decision to initiate a new class was made by the Chairman, the entire committee will have to decide how long to continue this new class and whether contributors of Class B data will have access to Class A material.

(Continued on Page 5)

Data Entry Requirements Amended, Cont.

At this time, we have not arrived at a policy regarding users. For the present, only those persons submitting original ring materials will be able to request other materials from the Data Bank. We will have to decide within the year how requests for data will be met and how the costs will be handled. Send ideas, inquiries, and submissions to:

Manager, International Tree-Ring Data Bank
Laboratory of Tree-Ring Research
University of Arizona
Tucson, Arizona 85721
U. S. A.

KAREN BABCOCK RESIGNS AS ITRDB MANAGER

Mrs. Karen Babcock McDougall resigned her position as Manager of the International Tree-Ring Data Bank effective October 1, 1975. Her resignation was submitted prior to her marriage in September to Capt. Charles McDougall and their subsequent move to Maryland where Capt. McDougall is stationed. Mrs. McDougall played an important role in the formation of the International Data Bank, and her resignation was reluctantly accepted by Harold C. Fritts, Chairman of the ITRDB Committee. Mrs. McDougall's position as Data Bank Manager has been filled by Mrs. Judith A. Sherwood of Tucson, Arizona.

10 WEST GERMAN CHRONOLOGIES DONATED BY BURGHART SCHMIDT

Burghart Schmidt of the University of Cologne, Federal Republic of Germany, visited the Laboratory of Tree-Ring Research at Tucson, Arizona, during October, 1975, to work with H. C. Fritts. The visit ended with a successful attempt to reconstruct climate using European tree-ring materials. For this project, 11 tree-ring chronologies were used to reconstruct temperature and precipitation data selected from 12 weather stations. Ten of the chronologies developed by Schmidt and others

West German Chronologies, Cont.

have now been entered into the International Tree-Ring Data Bank along with 14 response functions obtained for them. The results of this collaboration are to be part of Schmidt's Ph.D. thesis which is under the direction of Dieter Eckstein, Hamburg.

FACTS AND FIGURES

A brief analysis of the holdings of the Data Bank indicates its worldwide acceptance as evidenced by the following facts and figures:

Total number of chronologies contributed: 244

Total number of sites contributed (including subsites): 196

Total number of individual contributors: 20

Total number of institutional contributors: 1

Total number of countries represented: 13

In addition, the International Tree-Ring Data Bank *Newsletter* is read by scientists in 18 countries speaking 14 different languages. It is gratifying to know that this is truly an international endeavor!



Judi Sherwood (left), Data Bank Manager, and Linda Drew (right), Technical Assistant, discuss the entry of the newest contributions to the Data Bank.

CURRENT HOLDINGS OF THE ITRDB
AS OF MARCH 1, 1977

Country	Contributor	No. of Sites
Austria	LaMarche, V. C., Jr., and Fritts, H. C., Laboratory of Tree-Ring Research, Tucson, Arizona	1
Canada	Laboratory of Tree-Ring Research, Tucson, Arizona	7
	Wiseman, Martha A., Laboratory of Tree-Ring Research, Tucson, Arizona	2
Czechoslovakia	Becker, Bernd, Universität Hohenheim, Stuttgart	5
Federal Republic of Germany	Becker, Bernd, Universität Hohenheim, Stuttgart	10
	Eckstein, Dieter, Universität Hamburg, Hamburg	3
	Fritts, H. C., Laboratory of Tree-Ring Research, Tucson, Arizona, and Becker, Bernd, Universität Hohenheim, Stuttgart	1
	Schmidt, Burghart, University of Cologne, Cologne	10
France	Serre, Françoise, Université Aix-Marseille III, Marseille	1
Italy	Becker, Bernd, Universität Hohenheim, Stuttgart	5
Mexico	Laboratory of Tree-Ring Research, Tucson, Arizona	6
Northern Ireland	Baillie, M. G. L., The Queen's University, Belfast	1
	Pilcher, J. R., The Queen's University, Belfast	1
Poland	Bednarz, Zdzisław, Akademia Rolnicza, Kraków	1
	Feliksik, E., Akademia Rolnicza, Kraków	1
Sweden	Harlan, T. P., Laboratory of Tree-Ring Research, Tucson, Arizona	2
	Harlan, T. P., Laboratory of Tree-Ring Research, Tucson, Arizona, and Jonsson, Bengt, Royal College of Forestry, Stockholm	3
	Jonsson, Bengt, Royal College of Forestry, Stockholm	1

Country	Contributor	No. of Sites
Switzerland	LaMarche, V. C., Jr., and Fritts, H. C., Laboratory of Tree-Ring Research, Tucson, Arizona	1
	Munaut, André V., Laboratoire de Palynologie et Phytosociologie, Louvain-La-Neuve, Belgium	2
	Schweingruber, Fritz H., Forest Research Institute, Birmensdorf, Switzerland	12
U. S. S. R.	Kolchin, B. A., Institute of Archaeology, Moscow	1
U. S. A.	Brubaker, Linda B., University of Washington, Seattle	10
	Douglas, Arthur V., University of Nebraska, Lincoln	1
	Fritts, H. C., Laboratory of Tree-Ring Research, Tucson, Arizona	1
	Laboratory of Tree-Ring Research, Tucson, Arizona	89
	Stockton, C. W., Laboratory of Tree-Ring Research, Tucson, Arizona	1
	Robinson, W. J., Laboratory of Tree-Ring Research, Tucson, Arizona	17

DO NOT WRITE HERE
 Data Bank Use Only
 Job Order # _____
 I. D. # _____
 ITRDB # _____
 Date _____

INTERNATIONAL TREE-RING DATA BANK: REVISED SITE INFORMATION SHEET

REQUIRED INFORMATION

1. NAME OF SITE _____
2. COUNTRY _____ State or Province _____
 Subdivision _____
3. NAME OF SUBMITTOR _____
 Last Name First Name Initial
 ADDRESS OF SUBMITTOR _____
 Institution Country
4. NAME(S) OF COLLECTOR(S) _____
 ADDRESS(ES) OF COLLECTOR(S), if different from 3. _____
5. DATE COLLECTED Year _____ Month _____ Day _____
6. SOURCE OF COLLECTED MATERIAL 1) Living trees 2) Historical 3) Archaeological
 4) Geological 5) Other _____
7. ELEVATION (altitude) _____ meters
8. LATITUDE Degrees _____ Minutes _____ Seconds _____ 1) North 2) South
9. LONGITUDE Degrees _____ Minutes _____ Seconds _____ 1) East 2) West
10. COLLECTED GENUS _____ SPECIES _____
11. NUMBER OF TREES _____ TOTAL NUMBER OF RADII MEASURED _____ NUMBER OF RADII PER TREE _____
12. TYPE OF MEASUREMENT 1) Total ring width 2) Earlywood width only 3) Latewood width only
 4) Both earlywood and latewood 5) Density measurement 6) Other _____
13. UNIT OF MEASUREMENT OF BASIC DATA 1) 100ths mm 2) 10ths mm 3) 100ths inch
 4) 10ths inch 5) Other _____
14. BEGINNING YEAR OF CHRONOLOGY _____ ENDING YEAR _____
15. SUBMITTOR'S CLASSIFICATION OF DATA 1) Available to all Data Bank users 2) Available
 by permission of submittor only

I acknowledge that all materials within the site do crossdate and that actual measurements (not derived indices) have been submitted.

SIGNATURE OF SUBMITTOR _____

DATE _____

CARD HANDLING PROCEDURES
FOR THE
INTERNATIONAL TREE-RING DATA BANK

1. Data should be submitted in the standard format used by the International Tree-Ring Data Bank, if possible. Copies of this format are available at no charge by writing:

Manager, International Tree-Ring Data Bank
Laboratory of Tree-Ring Research
University of Arizona
Tucson, Arizona 85721
U. S. A.

However, other formats can be accepted provided that they are adequately documented.

2. Each card should be identified according to site, tree, radius, and date of the first ring-width value on the card.
3. If each card is not identified individually, please include a listing of the deck along with the cards when they are mailed.
4. It is a good idea to draw a diagonal line in ink from corner to corner across the top edge of the deck. This makes it easier to see if a card is out of sequence.
5. Please send all cards for each site at one time and include the Site Information Sheet with the cards, if possible.
6. Data may be submitted on magnetic tape also (preferably 9-track). If a tape is submitted, it must be written so that it can be easily read on a CDC computer. This would include character mode (not binary), fixed length records, and constant size blocking. A detailed description of how the tape was written and the actual contents must accompany the tape.

PRESENT HOLDINGS

Since the *Newsletter* was last published in 1975, the Data Bank has received many new contributions. In addition to the contributions by Schmidt (see page 5, column 1) and Schweingruber (see page 3, column 1), the following materials have been received for European sites: A site in Austria and a site in Switzerland were the joint contribution of Valmore C. LaMarche, Jr., and Harold C. Fritts, both of the Laboratory of Tree-Ring Research. Data from Northern Ireland have been received from Jon Pilcher and Michael Baillie, both of the Queen's University, Belfast. Bernd Becker of the Universität Hohenheim, Stuttgart, has contributed 10 sites from the Federal Republic of Germany, 5 sites from Czechoslovakia, and 5 sites from Italy. Dieter Eckstein of the Universität Hamburg is submitting three sites in the Federal Republic of Germany. Two Canadian sites were contributed by Martha A. Wiseman of the Laboratory of Tree-Ring Research. Several sites from the United States were also received this past year. Among them were 10 sites in Idaho and Washington collected by Linda B. Brubaker of the University of Washington, and an Alaskan site donated by Harold C. Fritts. Arthur V. Douglas of the University of Nebraska contributed ring widths from California, and Charles W. Stockton of the Laboratory of Tree-Ring Research donated a site in New Mexico. Numerous sites in

Present Holdings, Cont.

the American Southwest were contributed by W. J. Robinson, also of the Laboratory of Tree-Ring Research. A collection of 102 sites in western North America (including sites in Canada, Mexico, and the United States) was submitted by the Laboratory of Tree-Ring Research.

The year 1976 also saw the official entry of a number of sites which had been tentatively submitted earlier. Two sites in Switzerland contributed by André Munaut of the University of Louvain, Belgium, were among those entered into the Data Bank. Materials from France submitted by Françoise Serre, of the Université Aix-Marseille, France, were also entered. B. A. Kolchin's data from an archaeological site at Novgorod, U. S. S. R., were also processed and added to the Data Bank. In addition, the processing was completed for three sites in Sweden donated by Thomas Harlan of the Laboratory of Tree-Ring Research and Bengt Jonsson of the Royal College of Forestry, Stockholm, and for two other sites in Sweden made available by Harlan. Also, Edward Feliksik and Zdzisław Bednarz, both of the Academy of Agriculture, Kraków, Poland, each completed the entry of a new site in Poland.

For a list of current holdings, which are available to Data Bank members only, see pages 6 and 7.

INTERNATIONAL TREE-RING DATA BANK

International Committee:

Harold C. Fritts, Chairman, Tucson
Bernd Becker, Stuttgart
Zdzisław Bednarz, Kraków
Jon Pilcher, Belfast
Charles Stockton, Tucson

Staff Members:

Judith A. Sherwood, Manager and
Editor
Linda G. Drew, Technical Assistant

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