

European Pollen Database

Newsletter Number 2

Arles - August 1991

Introduction

It is now six months since the first Newsletter, including the Questionnaire, was distributed. This short second Newsletter is intended briefly to report upon both our progress since that time and upon the responses to the Questionnaire. If any reader of this second Newsletter did not see a copy of the first Newsletter and the Questionnaire then they can obtain a copy by writing to the Database Centre in Arles.

An apology must be made to our colleagues in the Alpine Palynological Database (Alpadaba). An error in the re-drafting of the figure used in the first Newsletter to illustrate the relationships between the various components of the E.P.D. and Alpadaba placed the latter under the E.P.D. umbrella. This was an error; Alpadaba is not a regional component of the E.P.D. but is an independent initiative running in parallel to the E.P.D. Brigitta Ammann is both a member of the E.P.D. Executive Committee and centrally involved in Alpadaba. We hope that this clarifies the issue and that our colleagues will accept our apologies for any misunderstanding caused.

Progress Report

Rachid Cheddadi from Montpellier Palynological Laboratory, is appointed as a post doc to the Arles database.

The teams involved in the technical management of the database and in the compilation of data (Arles, Cambridge, Durham and Springfield) have spent much of the last six months solving software problems and laying the foundations for the data compilation that is now underway.

The PARADOX table structure has been modified in several respects in the light of experience and to facilitate the preparation of scripts that will allow the data in the tables to be

manipulated and/or queried more efficiently. Additional tables were designed by Mike Field to enable chronological data for TL, ESR etc. to be stored. Scripts to prepare the empty tables have been written by John Keltner and the tables are now in use as data compilation recently got underway.

As those on the Advisory Board are already aware, and those who have offered data will soon become aware if they are not already, the data to be compiled and stored will extend far beyond the pollen counts. Precise details of the site location, the present vegetation surrounding the site, the sediment lithology, the chronology, all bibliographic details relating to published accounts of the site, and the name(s) and address(es) of the worker(s) who sampled and analysed the site will be included in the database. Every effort will be made to ensure that the information for each site is as complete and as correct as possible.

In order to compile and record all of this information a series of data recording sheets was needed. The task of designing and preparing these was undertaken primarily by Annabel Gear with some initial assistance from Mike Field. The sheets have now been printed and are in use for data compilation.

Another substantial task that was completed in Durham, again with assistance from Mike Field in Cambridge, was the preparation of an initial taxon list. This list was prepared by examining a selection of pollen diagrams from different parts of Europe and spanning different periods of time. Over 1000 taxa were listed and form the initial taxon list to which code numbers have now been assigned. As agreed by the Advisory Board, no attempt has been made to determine the synonymy or hierarchic relationships between taxa. However, the agreed nomenclatural conventions have been applied and, as far as possible, *Flora Europaea* used to standardise the plant nomenclature upon which the names of the pollen

taxa are based. Additions to the list are made as necessary when new taxa are encountered during data compilation; code numbers for these taxa are assigned centrally in Arles.

In order to facilitate data compilation a PARADOX script has been written by J. Guiot, C. Goeury and R. Cheddadi that allows pollen data already stored in files formatted for the G3PAL program written in Marseille to be transferred into the PARADOX tables. The program TILIA, written by Eric Grimm, continues to be developed and improved; 31 workers have received copies of the program to-date. This program provides a facility to translate data files prepared for the POLLDATA program written by John Birks and Brian Huntley. Ian Shennan (Geography Department, University of Durham) has recently written a program that enables the transfer to TILIA of data files prepared for the program he has previously used for handling pollen data. Steve Juggins (Botanical Institute, Univ. of Bergen) has also written a program that enables the transfer to Tilia of data files prepared in the format for Tranquillini's pollen diagram plotting program that is widely used in central Europe. A script to perform the transfer of data from a TILIA spreadsheet to the PARADOX tables of the E.P.D. has now been completed by John Keltner.

Data compilation finally has begun in the last few weeks. Data sheets have been completed in Durham for 34 lateglacial sites and data are in hand for 13 of these sites. 32 of these sets of data sheets have now been sent to the relevant data originators for checking and the addition of any further information that could not be determined from the available publications. The first 2 lateglacial sites have been completed and entered into the E.P.D. In Arles, 44 data sheets are also being completed and sent to data originators. The first 2 Holocene sites have also been completed and entered into the E.P.D. The commencement of this work has focussed attention upon the central role that Arles must play in assigning code numbers for sites, publications, workers, etc. as well as additional pollen taxa. E-mail and Fax are used to ensure rapid turnaround, whilst an agreed scheduling of requests ensures that the Database Centre is not constantly being troubled for small numbers of codes. Although there have been some 'teething problems' the system is settling down into a workable pattern. Important lessons have been learned, however, that

can be applied as and when any of the proposed regional databases that will compile data for transfer to the E.P.D. begin to operate.

In relation to regional databases, it is pleasing to report that such an initiative has now been taken for Scandinavia. Marie-José Gaillard-Lemdahl (Dept. of Quaternary Geology, Lund) is the contact person. It is also planned to hold a Working Group meeting during the APLF meeting in Caen during September this year. In addition, Ian Shennan has made an informal approach on behalf of those involved in research into sea-level change; he is exploring the possibility of a coastal database group that would contribute to the E.P.D.

The Questionnaire

As agreed, Arles has acted as a 'clearing house' for responses to the Questionnaire. Responses offering lateglacial or interglacial data have been forwarded to Durham and Cambridge respectively, whereas those offering Holocene data only have been retained in Arles. To-date 65 respondents have offered Holocene data. A total of 44 workers either have offered lateglacial data, or have agreed to make such data available following a personal approach. Most of those who have offered data have offered more than one site, for example the total of lateglacial sites offered to-date stands at 100. Data have been offered by workers in many different parts of Europe and already sites situated in more than 20 countries have been offered. Appendix 1 lists those whose offers of data we have received to-date.

A number of respondents have made comments concerning the Protocols for the E.P.D. The main comments are about data restriction. Will restricted data be viewed? A commonly expressed view is that restricted data are not protected if they can be viewed. In addition, some contributors have written that they would like to know if their data are being used (Protocol C, point 2). It has also been asked if all the information requested in the questionnaire is really necessary for the purpose of the pollen database. These comments and additional points raised by other contributors will be considered and reviewed by the Advisory Board at the next meeting. The technical and administrative difficulties of distributing only part(s) of the database would be considerable. The use of data encryption and passwords to protect restricted data

would be cumbersome and would inevitably attract 'hacking' by the unscrupulous. Nonetheless, given the concerns expressed by several respondents, this matter must be reviewed by the Advisory Board at its next meeting.

Future Perspectives

A number of palynological colleagues and teams have not yet responded to the Questionnaire in the first Newsletter. We hope that this second Newsletter may help convince them that the project is underway and making progress, and so may encourage them to participate. This is especially true for those who participated in the IGCP 158B sub-project that in part stimulated the development of the E.P.D. The Advisory Board suggested that data compilation shall give priority to sites that formed part of the IGCP 158B sub-project. We thus particularly will welcome responses from those involved in that project, as well as from any other palynologists willing to contribute their data.

Although the funding from the EC and NERC has allowed the establishment of the database centre and has enabled data compilation to commence, it does not allow us to fulfill some of our other objectives. In particular, the funds necessary to promote exchanges between Eastern and Western European countries and to allow the Advisory Board to meet to perform its tasks in relation to the development of the database are not available.

Accordingly, Jacques-Louis de Beaulieu has coordinated an application from several palynological teams under the EC program TEMPUS that specifically provides for East-West exchanges and for the organisation of training courses. Unfortunately, this application has been recently rejected. However, Jacques-Louis de Beaulieu has obtained support from the European

Science Foundation that will enable the Executive Committee to organise a workshop meeting on '*Computer management of pollen data and introduction into structure, organization and handling of the European Pollen Database (EPD)*' (11th E.P.C. Workshop) that will take place in Arles in April 1992. These funds will enable some younger scientists from central and eastern Europe, as well as the Advisory Board, to attend the meeting and will afford the opportunity for some of these workers to extend their stay in Arles by a few days to be trained in the use of the E.P.D. software available at that time. The Advisory Board will meet during the workshop to deal with E.P.D. business. A particular matter that requires attention is that of the synonymy and hierarchic relations of the pollen taxa listed to-date. It will probably prove necessary to organise working group meetings to deal with some aspects of this problem. Other matters requiring the attention of the Advisory Board will be the Protocols, in the light of comments received from respondents to the Questionnaire, and the strategy of the E.P.D. for 1992-3 as well as for the longer-term future when further funding will need to be sought.

Negotiations with IBM (Norway) and IBM (Europe) concerning donation of PCs to colleagues in Eastern European countries are proceeding well. IBM is becoming increasingly interested in helping the project not only by donating PCs but also in developing scientific links with the centre at Arles and with data-base activities in Scandinavia.

Meantime, we will be pleased to hear from any of you who have further data to offer or who have questions or comments about our work to-date or the future strategy of the E.P.D.

Executive Committee *

22.08.91

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