INQUA 1999 (Durban Afrique du Sud)

Au mois d'Août 1999 s'est déroulé à Durban en Afrique du Sud le 15ème congrès international INQUA. **Louis SCOTT**, **Anne-Marie LEZINE** et **Adebisi SOWUNMI** ont été "convenors" d'une session de poster et un atelier pour APD qui a pour titre "*Pollen (Bio)diversity in Africa: past and present*".

CONTRIBUTIONS OF APD MEMBERS

(P05, P10, P24, P 20, **P21**, P37, P39, P41, S06-2, S06-4, S09-2, S09-6, S10-2, S10-3)

en caractères gras, les présentations lors de la session de posters P21

1. AGWU C.O.C. - monitoring environmental changes in Nigeria through pollen studies.

2. ANSELMETTI F., ARIZTEGUI D., MALEY J., OSLISLY R., FONTUGNE M .- linking palaeoenvironmental changes and human settlement history in Equatorial rainforest: evidence from the sedimentary record of lakes Divangui and Kamalété, Gabon.

3. **APD Members** - african pollen database : an international network for understanding past and present ecosystems in sub-saharan Africa.

4. AUCOUR A.-M., BONNEFILLE R. , HILLAIRE-MARCEL C. - Glacial/Interglacial shift in thed13C of organic matter in EastnAfrican peatbogs.

5. BAUHMAUER R., SCHULZ E., POMEL S. - holocene environmental changes in cnetral Sahara: new implications for the Seguedim area of N.E. Niger.

6. **BEUNING K. RM**. - modern pollen, vegetation and charcoal abundance in the lowland crater lakes of western Uganda.

7. BONNEFILLE R., JOLLY D., CHALIE F., PEYRON O. – reconstructing biomes and climatic parameters at hominid sites (example from Hadar, Ethiopia).

8. BOREUX J.J., GUIOT J., DUCKSTEIN L., PINOT S., PEYRON O., JOLLY D.- Multicriterion evaluation of the climatic models versus the tropical cooling at the last glacial maximum

9. CARRION J. S., SCOTT L., HUFFMAN T., DREYER C. - a palynological investigation on fossil cow dung from Iron Age sites of Southern Africa.

10. **CASSIGNAT C., JOLLY D., GUIOT J., BONNEFILLE R.** – seasonality of precipitations in Equatorial Africa at mid-Holocene: model-data comparison.

11. **CAZET J.-P., LEZINE A.-M.** - hydrology and vegetation changes in the Niger River watershed during the last glacial-interglacial times.

12. **CHALIE F., BONNEFILLE R.** - inferring past climate changes using central east African pollen dataset - the rainfall record of the last 40 kyrs BP.

13. **CHUINE I., BONNEFILLE R.** - rarefaction and diversity analysis in modern and fossil pollen spectra from East Africa.

14. **DALLARI L., ELENGA H., DE NAMUR C., JOLLY D., VINCENS A., GUIOT J., SCHWARTZ D., BONNEFILLE R., ROUX M.** - use of patches to evaluate biodiversity of pollen and phytosociological data in African rain forest.

15. **DARBYSHIRE I., VERSCHUREN D., LAMB H.** - vegetation change in the central Kenyan Rift Valley dring the last 1200 years.

16. DUPONT L. - responses of the west African vegetation zones to climatic fluctuations of the last 500 ka.

17. DUPONT L., JAHNS B., DONNER B. - vegetation changes in west equatorial Africa in connection to the mid-Pleistocene climate transition (0.9-0.5 MA).

18. **EDORH Th. M., LEZINE A.-M.** - mangroves of Togo: vegetation and pollen composition.

19. GRAY C., MEADOWS M., LEE THORP J., JOUANNEAU J. - a record of terrestrial environmental change from marine cores of the Namaqualand mudbelt in Southern Africa.

20. GUIOT J., JOLLY D., PEYRON O., CHEDDADI R. - pollen-derived palaeoclimatic reconstructions: potentialities and limitations for data-model comparison.

21. GULLIVER V.L., MEADOWS M.E., NASH D.J. - holocene environmental change in the Ncamasere valley, North West Botswana.

22. JOLLY D., GUIOT J., PEYRON O., CHEDDADI R., ELENGA H., ALEXANDRE A., BONNEFILLE R. - pollen-derived vegetation reconstructions: potentialities and limitations for data-model comparison.

23. JOLLY D., PRENTICE I.C., GUIOT J., BONNEFILLE R., BENGO M., BRENAC P., BUCHET G., CASSIGNAT C., DALLARI L., EDORH T., ELENGA H., LEZINE A.M., MALEY J., PEYRON O., REYNAUD-FARRERA I., RIOLLET G., VINCENS A. - pollen-based biome reconstruction in central and west Africa.

24. **LEZINE A.-M.** - late quaternary vegetation of Yemen.

25. MEADOWS M.E., BAXTER A.J. - Holocene vegetation history and palaeoenvironments at Klaarfontein, Western Cape South Africa.

26. MARCHANT R., TAYLOR D. - an application of the relationships between montane rain forest and modern pollen accumulation data to sedimentary evidence from Mubwindi swamp, southern Uganda.

27. MARCHANT R., TAYLOR D., HAMILTON A. - Forest refugia of the last glacial period: implications for present forest biodiversity.

28. MARRET F., SCOURSE J.D., JANSEN J.H.F., VERSTEEGH – A high-resolution record of terrestrial aridity, relative sea-level change and oceanic productivity from the Congo fan over the past 30,000 years.

29. MOHAMMED UMER M. - evidence of late Holocene climate changes in Ethiopia. Implication for historical drought events.

30. **MOHAMMED UMER M., LAMB H., TUBERVILLE R., DERBYSHIRE I.** - pollen, charcoal and grass epidermis records of land-surface change in the Ethiopian Rift valley.

31. **NYAKALE M., SCOTT L., BOUSMAN C.B.** - palynology of late Holocene deposits of the Central Plateau, South Africa.

32. PEYRON O., GUIOT J., JOLLY D., BONNEFILLE R., VINCENS A. – the climate of east Africa from pollen data, 6000 yr ago: comparison of two methods.

33. PINOT S., RAMSTEIN G., HARRISON S.P., GUIOT J., JOUSSAUME S. – LGM climate simulated by 18 AGCMs in PMIP framework: comparison with paleodata.

34. PINOT S., RAMSTEIN G., PEYRON O., GUIOT J., HARRISON S.P., JOUSSAUME S. - LGM climate in the tropics simulated in PMIP framework.

35. **SALZMANN U.** - between desert and forest: the Holocene savannas of NE-Nigeria.

36. SCOTT L. , LEE-THORP J. , HOLMGREN K. - Integrating pollen and isotopic proxy data to produce a coherent record of Holocene environments in southern Africa.

37. **SOWUNMI A., OYERLARAN P. A.** - Holocene environments in west Africa, with particular emphasis on Nigeria.

38. **SSEMMANDA I.** - vegetation and climate in the lake Albert basin (Uganda, Congo) during the last 13 000 Years B.P. : Palynological contribution.

39. TAYLOR D., ROBERTSHAW P., MARCHANT R.A. - environmental change and political-economic upheaval in precolonial, western Uganda.

40. VAN MANNEKES H.M., MEADOWS M.E., HOLMES P.J. - a late Quaternary sediment sequence in the northern Cedarberg, Western Cape Province, South Africa.

41. WILLIAMSON D., **JOLLY D.**, THEVENON F., BARKER P., DAMNATI B., HARRISON S.P. - a comparison of PMIP simulations with paleolake records across intertropical Africa

W 21 : Pollen Workshop biodiversity in sub-saharan Africa, past and present (African Pollen Database)

Part one: STATE OF THE ART

Chairman: B. Sowunmi

Anne-Marie Lézine:

- **General presentation**: - financial informations: the project is supported the European Community, which support the INCO-DC project. A second source of funds is the UNESCO IGCP-431 which help for the organization of the three scientific meetings (Kew in 1998; Durban in 1999; Nanjing in 2001).

- the web page is presented. It will be opened next September on the site of Medias-France (www.medias.meteo.fr/apd): it will contain administrative structures of APD, the INCO-DC project, related programs, data and software accessibility, newsletters…

- announcements: the next workshop for APD will be held in Nanjing during the ICP-10 "modeling and mapping vegetation changes in Africa". The participants have been asked to address them-selves to the ICP secretariat for registration procedures (Qwlui@jonline.com). The cloture meeting of the INCO-DC project APD will be held in Nairobi (Kenya) in September 2001.

Dominique Jolly:

- Data storage: - 416 modern surface samples have been incorporated in the Database since January by D. Jolly ; the 110 cores already entered by H. Elenga, the Data Manager in Africa, have to be converted under the PARADOX format and will be available through internet (via Medias-France and NOAA-NGDC) in September 1999. Up to date, only 34 of them are available to users, the rest are still undergoing cross checking. Ten additional sequences have been stored in the database by H. Elenga.

- About 800 modern samples are yet to be stored in APD by D. Jolly

  Suggestions: the APD should include data from North Africa in a next phase. The inclusion of authors names on the first page of the web will encourage people to submit their data to APD.

- Other items: - Since Dominique Jolly has got a new position as professor at the University of Montpellier II, a new data manager for Europe will be designed.

- In the frame of the INCO project, a workshop will be held in Toulouse (France) in next November on the use of databases and vegetation modeling exercises.

    - Scientific results: two master thesis of C. Cassignat and L. Dallari and one "licence" thesis of O. Flores have been completed. The work done uses data from APD. The main results have been presented as posters in the related APD poster session P-21.

      It is requested to acknowledge the European Community and UNESCO for their financial contribution to APD.

L. Scott:

- **List of Late Quaternary Pollen taxa**: the list has been compiled and studied by Annie Vincens. It contains about 1600 items. The name of each pollen taxon has been discussed taking into account their morphology. The taxonomy uses "énumération des plantes à fleurs d'Afrique tropicale" from Lebrun and Storks (1991). This very important and time consuming work has been done with the collaboration of G. Riollet and G. Buchet from Marseille. It has been requested to contact Annie Vincens through the special forum opened for this purpose on the web, to discuss and improve this list. The nomenclature used for APD should be the nearest possible to that used for the Global Pollen Database for common pollen taxa. It has been suggested, as it is done in the Latin American Pollen Database, that ecological/phytogeographical informations should be added. It could be done eventually in a next phase of the project by botanists and/or phytogeographers.

Anne-Marie Lézine:

- **Electronic images for pollen taxa**: Up to now 2857 photos of reference pollen grains have been compiled by Leila Ben Khalifa-Jacobsen and Anne-Marie Lézine. They correspond to 650 pollen taxa. Part of them are directly available through the web. The extensive atlas of late quaternary pollen taxa for Africa will be distributed free of charge to all APD participants at the end of the project (2001). Anne-Marie Lézine has requested the APD members to increase their contribution to this compilation in giving access to their own collection.

Part two: GENERAL DISCUSSION

Chairman: L. Scott

- Membership: It has been suggested to renew the different APD committees. In the absence of any proposition, Anne-Marie Lézine has proposed to postpone the discussion in two years time after the end of the INCO-DC project. It can be done during the symposium to be organized in Nairobi to close the INCO-DC project.

- Communication: B. Sowunmi has requested more communication between partners to be informed on the use of funds and the advancement of data compilation and electronic images, planed workshops... These informations figure in the newletters. It has been regretted that the second newsletter was not distributed on time. The free access to the APD web page will probably contribute to increase information exchanges. It has been requested to the APD members not to hesitate to use the forum to give their views and contribute to the improvement of the Database.

The members expressed their satisfaction with the progress in the compilation of data and electronic images.

Dominique Jolly était responsable du symposium S6.02 (session PMIP) et de la session poster P48 associée; il etait également co-responsable avec M.P. Ledru de la session poster P24 'Ice age indicators in tropical forest environments' ;

L'organisation de la participation des partenaires du réseau APD à ce congrès a été assurée par **Michel Hoepffner**.