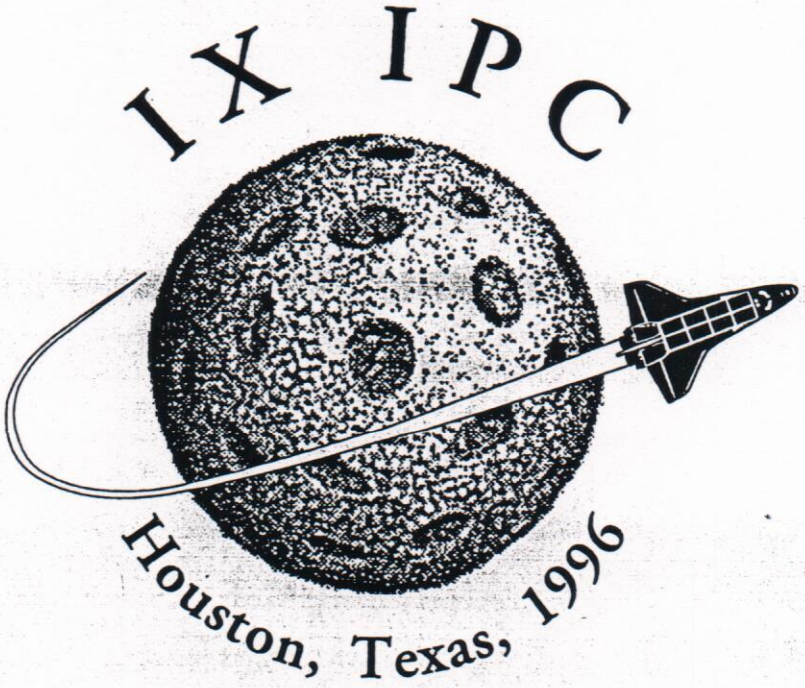
(2)

Ninth International Palynological Congress

Program and Abstracts



23-28 June 1996

Grass and weed pollen was dominant indoors at human height level. Tree pollen was also noted. In total, 48 fungal types were isolated with the dominant types being *Aspergilli* sp. and *Cladosporium* sp. Sharp monthly variations were noted for the weed pollen. The fungal types also depicted monthly variations. The house-dust mites peaked during the warm humid months.

Statistically, the influence of living conditions and the socio-economic strata on the prevalence of indoor bioparticles was studied by comparing group means using ANOVA.

PALEOPALYNOLOGICAL AND PALEOCLIMATIC STUDIES OF LOWER GONDWANA (PERMIAN) WARDHA VALLEY COAL BASIN

***S.N. Agashe and M.S. Philip**

Paleobotany Laboratory, Department of Botany, Bangalore University, Bangalore 560 056, India

Paleopalynological analyses of 39 coal seams from two coal fields in the Wardha Valley of central India have brought to light the existence of five palynozones. These palynozones range in age from early Karharbari to late Barakar in the Lower Gondwana sub-group. The generic composition of the palynozones is very distinctive when compared with the other Lower Gondwana basins of India. This suggests differences in the paleoclimate and paleoecology of this basin.

Palynozone I is present only in one of the coal fields and the affinities of the palynoflora suggest the predominance of Filicales, with a climate that was cool and moist. During palynozone II a cooling phase is indicated by the abundance of girdling monosaccates. This was followed by a prolonged phase of deposition (Palynozone III) during which there was a shift in climatic conditions from cool humid to warm humid environments. This palynozone can be further subdivided into three subzones peculiar to this basin. Palynozones IV and V have a palynoflora that indicates their age to be middle and late Barakar.

The miospore composition of the different palynozones and the fluctuation in time and space that influenced the paleoclimate are discussed in detail.

PALYNOLOGICAL STUDIES OF HONEY SAMPLES FROM BANGALORE DISTRICT, KARNATAKA, INDIA

***S.N. Agashe and M. Scinthia**

Palynology Laboratory, Botany Department, Bangalore University, Bangalore 560 056, India

Pollen analysis of 35 honey samples collected from four centers in the Bangalore District revealed 15 unifloral honeys and 20 multifloral honeys. The eight unifloral types encountered in 15 unifloral samples include: *Artemisia* honey, *Brassica* honey, *Cassia* honey, *Eucalyptus* honey, *Guizotia* honey, *Muntingia* honey, *Psidium* honey, and *Syzygium* honey. *Artemisia* honey and *Cassia* honey are reported for the first time from this area.

Honey samples yielded 131 pollen types with 4 to 38 types in each. Bangalore has two honey flow seasons, one from March to June followed by dry period of three months, and a second honey flow season from October to January, followed by a short dry period of one month during February.

Poisonous honey made from *Argemone mexicana*, *Croton bonplandianum*, or *Datura metel* are noted by pollen types recorded in the honey samples in the present investigation. These melissopalynological studies of honey samples provide useful data for applications in apiaries in the vicinity of Bangalore.

HUMAN SENSITIZATION TO *PROSOPIS* POLLEN IN SAUDI ARABIA

A.R. Al-Frayh[1*], S.M. Hasnain[2], M.O. Gad-el-Rab[1], K. Al-Mobairek[1] and S.T. Al-Sedairy[2]

[1]King Saud University, P.O. Box 7805, Riyadh 11472, Saudi Arabia
[2]King Faisal Specialist Hospital and Research Centre, P.O. Box 3354, Riyadh 11211, Saudi Arabia

Plants belonging to the genus *Prosopis* were introduced to the Kingdom of Saudi Arabia from Mexico and Central America. There are now >106 trees of *Prosopis* spp. including two native species on the road verges in different cities, with reportedly 4 flowering seasons.

In order to study the possible allergenic impact of *Prosopis* pollen in susceptible individuals in the Kingdom, Burkard volumetric and Personal volumetric samplers were employed to determine the concentration level of airborne pollen in different cities. The genus *Prosopis* is considered to be both insect- as well as wind-pollinated. The data collected did not reveal any significant mean daily, weekly or monthly concentrations, however, the maximum level of pollen approached or exceeded 140 grains/m^3 (12.00 hrs) in a mountainous region, 90 grains (10.00 hrs) in a coastal area, and 65 grains m-3 (10.00 hrs) in an agricultural setting. These airborne levels, even for a short duration, may act to sensitize susceptible individuals if exposed. The study is still in progress and detail analysis of the data is being conducted including seasonal periodicity.

Sensitization to *Prosopis* pollen was studied in a total of 250 asthmatic patients in four geographically different regions. Skin prick test (SPT) was conducted in all these patients using *Prosopis* juliflora extract (Meridian Biomedical, USA, w/v 1:20). IgE mediated reactions were recorded which varied with 18% (n= 156) in mountanious region, 77.3% (n = 66) in agricultural region, and 27.3% (n = 11) in a coastal region. The maximum of 77.3% positive reactions was recorded in the area where maximum number of *Prosopis* trees were observed.

The study, though still in progress, suggests that *Prosopis* pollen with sharp peaks is SPT positive, and in the absence of information on cross reactivities, may be responsible for sensitization and in turn, possible development of allergy in many patients in Saudi Arabia.

June 24, 1996 MONDAY

Aerobiology Session Number: M-1

Organizers: M.K. O'Rouke, E. Levetin, M. Hjelmroos Ball Room B

Medical Aerobiology

Chairperson: E.Levetin

08:00 - 08:20	O. Rybnícek, *E. Rybnícková, and K. Rybnícek	Ambrosia Pollen And Pollinosis In The Czech Republic
08:20 - 08:40	*S. N. Agashe and E. Philip	Aeropalynological Analysis Of Indoor Environments Of Nasobronchial Allergy Patients
08:40 - 09:00	D. J. Bass	An Unusual Aeroallergen Causing Late Onset Rhinoonjunctivitis And Asthma In A Nonatopic Male
09:00 - 09:20	*A. R. Al-Frayh, S. M. Hasnain, M. O. Gad-el-Rab, K. Al-Mobairek and S. T. Al Sedairy	Human Sensitization To *Prosopis* Pollen In Saudi Arabia
09:20 - 09:40	A. B. Singh	Environmental Pollen Allergens With Particular Reference To Type -I Hypersensitivity In India
09:40 - 10:00	COFFEE	

Fungal Aerobiology

Chairperson: C. Rogers

10:00 - 10:20	*S. M. Hasnain et al.	Allergenic Fungal Flora Of Indoor And Outdoor Environment In Saudi Arabia
10:20 - 10:40	*E. Levetin and R. Shaughnessy	*Myrothecium*: A New Indoor Contaminant?
10:40 -11:00	*A. Singh and A. B. Singh	*Aspergillus* As An Important Environmental Risk Factor Among Susceptible Individuals
11:00 - 13:00	LUNCH	

Airborne Pollen

Chairpersons: D. Bass and T.C. Huang

13:00 - 13:20	*M. Sado, H. Miyamoto, K. Fugita and K. Funami	The Development Of An Automatic System Of Collection And Analysis Of Airborne Pollens: Image Analysis Of Pollens
13:20 - 13:40	*F. Th. M. Spieksma and A. H. Nikkels	Long-Term Observations Of Airborne Grass Pollen, At Leiden, The Netherlands: Fluctuations In Quantities And Timing