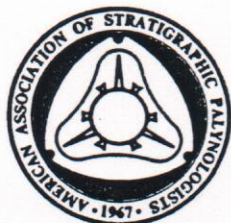
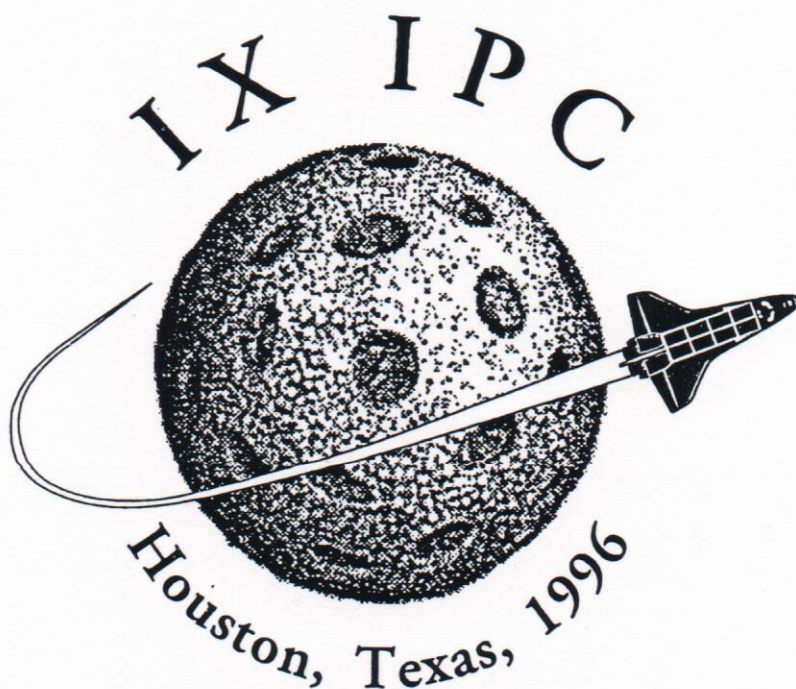


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Ninth International Palynological Congress

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Program and Abstracts



23-28 June 1996



June 24, 1996

MONDAY

Aerobiology

Session Number: M-1

Organizers: M.K. O'Rourke, E. Levetin, M. Hjelmroos

Ball Room B

Medical Aerobiology

Chairperson: E. Levetin

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|---------------|---|--|
| 08:00 - 08:20 | O. Rybníček, *E. Rybníčková,
and K. Rybníček | 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 Rhinooconjunctivitis 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 <i>Prosopis</i> 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

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|---------------|--------------------------------|--|
| 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 | <i>Myrothecium</i> : A New Indoor Contaminant? |
| 10:40 - 11:00 | *A. Singh and A. B. Singh | <i>Aspergillus</i> As An Important Environmental Risk Factor Among Susceptible Individuals |
| 11:00 - 13:00 | LUNCH | |

Airborne Pollen

Chairpersons: D. Bass and T.C. Huang

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|---------------|--|--|
| 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 |

ALLERGENIC FUNGAL FLORA OF INDOOR AND OUTDOOR ENVIRONMENT IN SAUDI ARABIA

*S.M. Hasnain¹, A.R. Al-Frayh², M.O. Gad-el-Rab², K. Al-Mobairek²,
A.R. Al-Suwaine¹, and S.T. Al-Sedairy¹

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In order to identify airborne fungal allergens, fungal flora of both indoor and outdoor environment in several cities of Saudi Arabia were studied using Burkard volumetric spore trap and Personal volumetric samplers. Indoor samples were collected from homes of patients suffering from respiratory allergic diseases as well as from control homes.

The data collected reveal that *Cladosporium* by far is the major fungal component in the outdoor environment along with *Ulocladium* and *Alternaria*. Indoor samples revealed *Penicillium*, *Aspergillus*, *Cladosporium*, *Alternaria*, *Ulocladium*, *Phoma*, *Rhizopus*, *Drechslera* and *Mucor* to be major components. However, in homes of patients suffering from allergic diseases including bronchial asthma, *Aspergillus*, *Alternaria* and *Ulocladium* were higher than in control homes. Site comparison within a city displayed a comparatively higher concentration in the developed area compared to less developed area. Comparison of morning and evening data exhibited higher concentration in the morning than in the evening. Several major components of outdoor air spora displayed seasonal and diurnal periodicities.

The frequency of IgE mediated reactions in allergic populations was established by skin prick testing (SPT). The frequent (mild and moderate) SPT reactions in the coastal region (n = 196) were recorded for *Aspergillus fumigatus* (39.8%), *Aspergillus niger* (41.8%), *Phoma herbarum* (48.8%), *Rhizopus* (15.8%) (mild only) and *Ulocladium chartarum* (26.0%). Combined percentages for positive SPT reactions at coastal, mountainous, agricultural and farming regions (n = 616) were 21.5% for *Alternaria* and 19.8% for *Cladosporium*. Multiple reactions were recorded in almost all patients for other allergens. It was noted that, in general, patients in coastal region reacted more to fungi than other areas. The study suggests that there are regional variation in both airborne concentrations and frequency of SPT reaction and indicates that higher concentration of fungi may be a risk factor for susceptible individuals. However, they may not necessarily be the only cause of allergic reaction in many patients.

THE SAFETY AND TOXICOLOGY EVALUATION OF "JINWANG PURE POLLEN" AND "POLLEN MATE"

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"Jinwang pure pollen" and "pollen mate" are new kinds of healthy and functional food developed by our Beijing Bee Products Institute. "Jinwang pure pollen" is prepared mainly by maize pollen, birdrape pollen and buckwheat pollen. "Pollen mate" is prepared exclusively for "Jinwang pure pollen". It's prepared by pure honey mixing up with extract of some beauty-effect Chinese herb. In September 1995, we entrusted The Health & Ante Epidemic Station of Beijing with doing safety and toxicology experiments in accordance to "Procedures and Methods for Toxicological Assessment on Food Safety" passed by the Health Department of China. The experiment items and results are:

1. Acute toxicity test: The result showed that half lethal dose was more than 20000mg/kgB.W. (LD >20000mg/kgB.W.)
2. Salmonella thphimurium/mammals microsomal enzyme test (Ames test): The result was negative.
3. Chromosome aberration test in mice testicle spermatocyte cells: The result was negative.
4. Micronucleus test of bone marrow cell: The result was negative.

The mutagenicity of Jinwang pure pollen was studied with three short-term genotoxic tests. The results of the three tests are negative. That shows that the Jinwang pure pollen has no mutagenicity in the present study.

Poster Display

PLIOCENE AND LOWER PLEISTOCENE DINOFLAGELLATES, ACROTARCHS, AND CLIMATES OF THE NORTH ATLANTIC REGION

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A diverse record of Pliocene-Pleistocene dinoflagellates and acrotarchs in the North Atlantic is preserved in numerous Deep Sea Drilling Project (DSDP) and Ocean Drilling Program (ODP) holes. Several of these have been selected for study, owing to their precise magnetostratigraphic and biostratigraphic control. DSDP Hole 603C, situated of the lower continental rise off New Jersey, has an essentially complete Pliocene and lowermost Pleistocene sedimentary record. DSDP Hole 610A, in the Rockall Trough, eastern Atlantic, has an almost complete section from middle lower Pliocene through lower Pleistocene. ODP Hole 646B in the Labrador Sea and ODP 645 in Baffin Bay offer additional points of comparison. Results confirm the applicability of dinoflagellates and acrotarchs for high resolution biostratigraphy in the Pliocene, and reflect mid-Pliocene warming and the initiation of North Atlantic glaciation at ca. 2.6 Ma.

Dinoflagellate assemblages in eastern England provide a fragmentary but valuable record of Pliocene-Pleistocene climate change in the southern North Sea. Dinoflagellate assemblages for the mid-Pliocene Coralline Drag Formation (ca. 3.75 to 3.55 Ma) indicate warm-temperate surface waters and contain several thermophilic species, including *Tectatodinium pellitum* and *Melitisphaeridium choanophorum*. A slight decrease in thermophilic species upsection adds detail to the interpretation of this warm interval.

Younger assemblages (late Pliocene and early? Pleistocene) in eastern England are characterized by a cool water element