Pan American Aerobiology Association

Newsletter Winter 2000

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FROM THE EDITOR

Even though the 2001 spring is in the air most news in this issue of the PAAA Newsletter is from the year 2000, thus the Newsletter is so dated. Whether we think of the year 2000 as the last of a gone millennium or as the first of a new millennium, it is a year much talked about, so elegant with that many zeros not to be seen together again soon. 2000 stands out and a 2000 Newsletter issue was obligatory.
It was a good year for the PAAA that gained many new members, kept a healthy financial situation, and expanded the Website. The highlight of the year was Aerobiology 2000, the both pleasant and invigorating Conference orchestrated by John Haines and Christine Rogers.
I still have a computer CD-R disk full of PAAA news and contributions from PAAA members that I hope will be able to publish before the new Executive Committee is appointed.
See y'all in North Carolina.

Inés Hurtado, Editor

MESSAGE FROM THE PRESIDENT

It has been a busy year in my lab with lots of projects, lots of trips, and lots of students. Last May, I was privileged to be asked to represent Oklahoma during NSF (National Science Foundation) Day in the U.S. Congress. This involved setting up a display on my NSF sponsored research, which involves my work with the Oklahoma Mesonet and the pollen forecasting. I was asked to bring a student who was participating in the research as well. The student is Micah Burch, an undergraduate who has been working in my lab for about two years. It was an exciting trip and we spoke to a number of U.S. Representatives. I think that the field of aerobiology got good exposure that day.

In July I was off to Mt. Cimone, Italy and the Advanced Aerobiology Course. It was wonderful to be a student again, even if it was only for one week. The course was well organized and the material well presented. We had a few glitches and had some equipment problems during our release experiments on the mountain, but otherwise everything went well. In addition, the facilities and the food were fantastic. I enjoyed seeing old friends and meeting lots of new ones. I am already looking forward to the next course.

August included a visit to Janet Macher's lab in Berkley and then the 14th Biometeorology and Aerobiology Conference in Davis, California. The PAAA was well represented at these meetings with a number of aerobiology presentations. The sessions were organized on the following themes: (1) Scientific Challenges in Aerobiology for the 21st Century, (2) Detection, Modeling, and Forecasting of Aerobiota, (3) Technical Challenges in Aerobiology, and (4) Curriculum Development in Aerobiology.

In February I spent five days in North Carolina. This included a visit to the Plant Pathology Dept at NC State and then the Conference on Future Directions in Air Quality Research in Research Triangle. Charlie Main organized the session on Aerobiology at the conference. There were a number of good presentations and a lot of interest in aerobiology. I

thought the aerobiology session was well attended considering it was the last day of a four day conference.

Our lab has stayed busy with the mountain cedar forecasting this winter as we finished up this five-year project. Other activities in the lab include a number of indoor air projects. We have had a lot of local concern about mold that developed after some air quality problems at a local high school. Judging from all the calls we are getting, Tulsa is becoming the mold capitol of the country. It's keeping us quite busy.

Have a good spring. I am looking forward to seeing all of you in Raleigh this June.

Estelle Levetin PAAA President

I - AEROBIOLOGY 2000

THE ALBANY-RENSSELAERVILLE MEETING

(Editor contribution)

We stopped in Albany just for Registration and a first Session, the Long Distance Transport Symposium, then moved to Rensselaerville to enjoy the beauty of Mother Nature, relax, breathe, and yes: to continue the meeting.

In Rensselaerville there were also two Workshops "Non-Biological Particles" and "Spore Camp" (covered separately in this and the following pages). Our only problem, not being able to make both. What a difficult choice.

The Sessions covered a wide range of subjects in 32 presentations. They came from diverse fields: Academia, Government Agencies, a private Research Institute, Service Enterprises, and the US Army. Several countries were represented: Austria, Canada, Italy, Mexico, Spain, and 16 States of the United States of America.

Science was omnipresent, we learnt so much. But the Muses had also their moments: with poetry readings by John Haines; a most unusual and atonal Frog Concert, early sold out; and , as an opening to the General Meeting, a piano duet by Harriet Burge and Janet Gallup. The two pianists did not stop there. Later they were spotted with easels and brushes, transferring a renewed inspiration to canvass. Most of us, less gifted, used our cameras to take back home some of the surrounding beauty.

We thank John Haines and Christine Rogers for the superb organization of the meeting. And for making possible to talk Aerobiology and meet friends in the Rensselaerville Institute and the Huyck Preserve, a dream location.

II - AEROBIOLOGY 2000

THE IDENTIFICATION OF NON-BIOLOGICAL PARTICLES IN AIR SAMPLING – A Workshop

(Contributed by John Shane)

The one day workshop on "The Identification of Non-biological Particles in Air Sampling" was held in conjunction of the PAAA meeting held in Renslaerrville, NY.
The workshop was attended by about 15 persons. All participants had available a polarizing light microscope. The course introduced polarized light microscopic techniques, as well as, a primer

on light microscopy and how to properly adjust your microscope for optimum performance. Tips on simple and inexpensive modifications to any microscope to add darkfield and rheinberg illumination were shown. Simple toplight illumination was demonstrated and shown effective for aerobiology also.
The participants had the use of a prepared particle set consisting of 100 samples. Many of the samples were characterized in class.
The course covered many particles of non-biologic origin that are seen in outdoor and indoor air samples that have puzzled aerobiologists for many years. Some of the particles that the participant were taught to recognize were, hard and softwood fibers, synthetic carpet fibers, synthetic clothing fibers, starch, diatoms, radiolarians, quartz, calcite, gypsum, several types of common building materials, human and animal hair, and many others.
There was plenty of time for hands on experimentation and study during the class.
The participants seemed to enjoy the class and I think it was successful.

A list of particles that aerobiologists wanted collected and mounted was compiled and I am working to get them done by the 2001 PAAA meeting.

III AEROBIOLOGY 2000

THE SPORE CAMP

(Contributed by Beatriz Escamilla-García)

Under the general title of "**PAAA History and Teaching Series"** Beatriz Escamilla proposes "a series of short interviews that will be devoted to the often unpublished scientific knowledge brought-up in informal conversations among aerobiologists (mostly PAAA members) who, by sharing their taught help the Aerobiology advancement. They also testify to the dynamism shown by the members of our association in promoting Aerobiology Research and diffusion".
Here comes the first interview …

An interview with: John Haines: "The Spore Camp"

Q: John, please tell us what "Spore camp" means?

A: According to my college dictionary, a "Spore" is "a walled body containing one or more uninucleate cells that develop into an adult organism". "Camp" is "a place where a body of persons is lodged in a temporary means of shelter". "Spore Camp" then, is a body of temporarily housed persons who study fungus spores and plant pollens. There are "Tennis Camps", "Music Camps", "Baseball Camps", "Sailing Camps", even "Space Camps". Why not a "Spore Camp"? These "Theme" camps have in addition, a stated, specific interest and a promise of learning or skill development. That is certainly true for "Spore Camp".

Q: Is it a term known before or yours?

A: I don't remember who first coined the name "Spore Camp", but I don't think I am clever enough to have done it. I do remember the term being used in conversations with Janet Gallup and a group of her associates as we discussed the camp idea at the Third Bioaerosols Meeting in Saratoga in September of 1998. Janet is definitely clever enough to have coined the name. If not, she was one of the first to get excited about the concept. It could, of course, have been either Mike Muilenberg or Christine Rogers who advocated for the first gathering.

Q: What is it exactly a spore camp?

A: At past PAAA meetings there have been short, scheduled, sessions for the identification of "Unknowns", but the time always seemed too brief and identifications from slide transparencies

too tentative. Real samples and time to spend together in discussion and at a microscope is the way of "Spore Camp". The ingredients of "Spore Camp" are: a pleasant natural setting with ample sources of spores and pollens, particulate air samplers operating on site to capture the spores and pollens from the air, microscopes, a wide variety of participants from different places and with different specialties and abilities, and good food and drink. It must have some organization, but it does not need to have designated instructors. Every Individual has an opportunity to demonstrate techniques and equipment and to show both identified and unidentified spores and pollens. Every participant is both a teacher and a student. Another feature is field trips. Frequent, short, walks into natural areas near the samplers are made to find natural sources of spores. We all know that most of the spores in our air samples come from fungi growing in their natural niche, but many of us have never observed those sources. It is very satisfying to find the fungus fruiting bodies and the spores in the same location. It adds a certainty to the spore identification and it puts the spores in a context of their environment rather than just in the disembodied state of a small speck on a microscope slide.

Q: Was the PAAA 2000 the first time you organized a spore camp?

A: The first "Spore Camp" was in May of 1999, exactly one year before PAAA 2000. It was held in the same location at the E. N. Huyck Nature Preserve in Rensselaerville, near Albany, New York. It was advocated by Chris Rogers and Mike Muilenberg, but it was immediately recognized by everyone who heard about it as a good idea. It was a regional affair, drawing from Montreal, Harvard, and Albany. There were only 8 to 10 participants but it was enthusiastically received. There was even a rumor that a major University was trying to move their Environmental Health program to the Preserve, permanently. The original idea for "Spore Camp" came from the Second International Advanced Course in Aerobiology at Sagamore Lodge in New York's Adirondack Mountains in July 1996. As part of fungus spore sampling and identification, I took each team on a "field trip" around the Burkard sampler in back of the lodge. Although we went less than 100 meters from the sampler, we gathered lots of fungi and tried to match them with the spore in the sampler slides. The richness of the fungus flora and the air spora surprised us all, and it was very instructive, and it also opened a new dimension to those of us who were trained in laboratories rather than in field biology. Another precedent for idea of "Spore Camp" is the mycological foray that accompanies meetings of mycological societies everywhere.

Q: How do you feel after this spore camp?

A: At first, I was worried by the large response from people who signed up for the Rensselaerville Spore Camp in 2000. I was afraid it would be too crowded, but my concern turned to gratification when I saw participants turn into a mentors and share what they learned through their personal experience. It would have been difficult to be there without learning something. Working with airborne fungus spores used to be an academic exercise, but it has recently become a very important health-related service in which a considerable amount of money is involved. It is especially important now for those in commerce and those in academia to maintain a free exchange of ideas and information. Without it, both fields would be the poorer. I believe that meaningful exchange took place at "Spore Camp" in Rensselaerville. The informal nature of camp has some advantages over the traditional meeting format of lectures for the exchange of this particular kind of work because it is so visual and experiential. I was also gratified to see such a wide diversity of interests and experience. It was particularly gratifying to see people showing the basics to those who are just starting in the field, and it is always interesting (humbling) to see how experience trumps university degrees when it comes to analyzing air samples.

Q: By being “informal” meetings, do you think the “camps” could be applied to other Aerobiology fields, for instance “Aerobiology camps”?

A: I don't know if other parts of aerobiology are as well suited as the part that deals with identification, and since my experience is with identification, it is hard for me to know how other aspects of aeromycology may be adapted. The one part of the advanced aerobiology course that

seems to generate the most excitement is the launch of the balloon with samplers. That would certainly be an interesting part of any meeting. Somehow, I had an image of a balloon floating over the conference center in Rensselaerville, but perhaps I did not imagine it hard enough to make it happen.

Q: Do you plan to organize further spore camps?

A: I don't think this idea will go away now that it has been experienced by more than 50 people. I would like to see it take place in different parts of the world where the environment is different. The idea is completely adaptable to any nice natural setting with workspace and a place to stay. A "Spore Camp" in conjunction with a mycological meeting is a particularly appealing idea to me, and of course, there is the 7th International Congress on Aerobiology coming to Château Montebello, in Quebec in August of 2002. I'll be there, and there just might be a "Spore Camp".

- Thank you very much John. Probably after experiencing a “spore camp”, participants will be pleased relaxing their tired eyes and trade their lab coats for hiking boots.
Beatriz Escamilla-Garcia

Pan-American Aerobiology Association
General Meeting Minutes
29 Apr 2000 – Rensselaerville, New York, USA

Musical Prelude – Piano duet by Harriet Burge and Janet Gallup

I. Minutes of the last General Meeting (30 May 1999, Tucson, AZ, USA) were accepted as distributed.

II. Executive Committee Report
- Nominating Committee – consists of the Past President (Larry Syzdek), at large member (William Solomon, elected during the 1999 General Membership Meeting), and the Executive Committee Appointee (Paul Comtois, selected during the 2000 Executive Committee Meeting).

III. Treasurer’s Report
- Submitted by Mike Muilenberg:
  - Balance from last report (May 1999) - $9,489.08
  - Income (June – Dec 1999) – 2,221.68
    - includes dues, interest, deposit from Aerobiology ’97 (Cambridge MA), etc.
  - Expenses (June – Dec 1999) - $3,580.32
    - includes postage, Web page expenses, IAA dues, and loan to Aerobiology 2000.
  - Income (Jan – May 2000) – $1,785.51
    - includes dues, interest, etc.
  - Expenses (Jan – May 2000) - $1,074.55
    - includes postage, Web page expenses, Development Awards.
  - Balance as of 21 Apr 2000 – 8,841.40
- Muilenberg noted that the $2,850 loan to Aerobiology 2000, as a deposit on the conference center, has been paid back. Also, he acknowledged the gift of $175 from John Haines, who donated his 1999 Participation Award prize to the PAAA to be used by the Latin American Fund.
- Paid members for year 2000 total 47, with 56 of our year 1999 members not having yet paid dues. Scott Isard, Membership Secretary, confirmed these numbers.

IV. Old Business
- A. LA Travel funds – tabled until later in meeting
- B. Mary Kay O’Rourke has close to $2000 left over from the 1999 Annual Meeting in Tucson; this will be donated back to the PAAA General Fund. She first needs to mail out the group photographs from the meeting.

C. John Shane mentioned that there is $4.95 (floating around somewhere).
The Treasurer's report was voted on and accepted after noting the addition of John Shane's comment. (Note: The Treasurer has been unable to contact Dr. Shane re: his comment.)

V. Committee Report

A. Latin American Committee – Estelle mentioned that the committee consists of Ines Hurtado, Bill Solomon, and Paul Comtois and asked if others would like to serve. Dan Friedman volunteered to help the committee.
Irma Rosas reported that she will be attending an Air pollution meeting in Venezuela and will network with Latin American attendees to increase the awareness of the PAAA.
Estelle reviewed the involvement the Latin American groups and emphasized that the PAAA is committed to increasing the involvement of Latin American aerobiologists in the PAAA.

B. Sampling Strategies – Larry Syzdek reported that last year Hirst-type sampler guidelines were presented and approved by the membership. Muilenberg stated that the guidelines have been revised and are complete.

C. Long Distance Dispersal – Estelle reported that the Friday afternoon symposium (28 Apr 00) in Albany was an outcome of this committee. No additional plans at this time.

D. Training – Janet Gallup announced that there would be a presentation and discussion on the committee's certification program during tomorrow's meeting and she will present committee activities at that time.

E. New Technologies – no committee members present, no report given

F. Database – John Shane indicated that they have a mission statement. Database templates are available. John also has a computer set up to demonstrate the pollen database.

VI. Student Development Awards

Estelle stated that there were four applicants for two $500 awards. She also noted that this year there are six students presenting abstracts. The Award recipients are Scott Laursen from the University of Wyoming and Eva Salinas from the University of Mexico. The PAAA extended their congratulations to both of them.

VII. IAA/PAAA Conferences

A. Aerobiology 2001 Meeting
Estelle announced that Charlie Main extended an invitation to have the 2001 PAAA meeting at North Carolina State University in Raleigh. Charlie suggested the dates of 16-19 June 2001 and asked if there were any conflicting meetings. The proposed meeting location and accommodations are at the Brownstone Hotel (about $79/night) in downtown Raleigh and is walking distance to N.C. State. Accommodations might also be available at the YMCA and in the college dorms.
Possible excursions include a National Weather Service facility and the Climate Center. In addition there are a number of natural areas nearby to hold "Spore Camp" if desired.
A motion was made to accept the invitation, which was seconded, and passed.

B. IAA 2002 Meeting
Paul Comtois, organizer of the 2002 International Congress on Aerobiology described the progress in planning the Congress. It will be held in Montebello a resort about an hours drive from Montreal, on 5 to 9 August 2002. Paul described the proposed format consisting of a number of symposia on very specific topics, organized by individuals or societies. He solicited volunteers to organize these symposia or workshops. An Advanced Aerobiology Course might also be organized in conjunction with the meeting. The grounds around the resort include 60,000 acres; plenty of room for spore camp or a mushroom foray.

VIII. Conferences and Meetings

A. IBC-PAAA Aerobiology Symposium

Estelle summarized the Aerobiology Symposium, sponsored by PAAA, at the International Botanical Congress held in St. Louis, in August 1999. About 50 people attended the Aerobiology Symposium. A full report of the symposium will be included in the next PAAA Newsletter.

Also of interest was the fact that two of the six Millennium Awards given by the IBC were awarded to those with Aerobiology connections: Knut Faegri, the palynologist, and C.T. Ingold, the noted mycologist and author of many books, including *The Fungus Spore*.

B. Other upcoming meetings

1. American Meteorological Society, which will include three sessions on aerobiology, will be held 14-17 Aug 2000 in Davis, California.
2. Advanced Aerobiology Workshop will be held in July at Mt. Cimone, outside Bologna, Italy. For more information contact Annalisa Ariatti, Paolo Mandrioli, or Scott Isard.
3. Air Quality Conference in Research Triangle Park in February (2001); Charlie Main is heading an aerobiology session.

IX. Charge to Nominating Committee

PAAA Officer Elections will be held during the 2001 annual meeting, the Nominating Committee should:

1. Select at least one nominee per office,
2. Make sure the nominee agrees to fulfill the responsibilities of the office,
3. Notify the Executive Committee before the annual meeting

If members have suggestions for officer nominees, please notify the Committee, which consists of Paul Comtois, Larry Syzdek, and Bill Solomon.

X. PAAA Logo

During last year's meeting, the PAAA membership voted to accept the long-used "*Ambrosia* pollen-globe" logo as the official PAAA logo. Since that time, Beatriz Escamilla and colleagues have designed a new logo that they would like the PAAA to consider. This logo was used on the 2000 Dues forms. Contact Beatriz for any comments or suggested modifications to this work in progress.

XI. Other Business

A. John Shane mentioned a program for exchanging pollen and spore slides similar to that of the "Postal Microscopical Society" (members submit 2 microscope slides which are circulated and described or identified by all participants; results are published in a newsletter). John offered to run the program if it is operated within the PAAA. Estelle asked John to submit a example description and photo for publication in the Newsletter.

B. WebPage - Chris Rogers, Webmaster, asked that membbers submit suggestions regarding formatting or content of the Web page to her. She also asked for information on upcoming meetings (descriptions, dates, etc.) or other announcements relevant to aerobiology that might be posted on the Web page.

C. Newsletter - Ines Hurtado, Newsletter Editor, asked that members submit to her, information to be included in the Newsletter, including meetings, events, aerobiology news, even poems.

D. Participation Award – Ballots will be collected after breakfast on Sunday morning. (Note: Stuart Gage was awarded the Participation Award)

XII. Adjourned

Respectfully submitted, Michael L. Muilenberg (correction made 7 Mar 01)

SYMPOSIUM ON AIR QUALITY

(Contributed by Charlie Main)

Estelle Levetin, Scott Isard, Stuart Gage and Charlie Main all participated in a symposium titled "Future Directions in Air Quality Research" held February 12-15, 2001 in the Research Triangle Park, North Carolina. Charlie organized and chaired the section of the symposium entitled Linkages of Aerobiological Issues with Ecological and Health Issues. Scott talked on Flow of Life in the Atmosphere, Stuart talked on Ecological Scaling in Forecasting and Estelle covered Bioaerosols and Human Health. Most scientists and administrators attending were atmospheric physicists, atmospheric chemists or air pollution orientated. These people seemed pleased and enlightened to learn more about the role of living things in the atmosphere. There will be a symposium volume published.

PUBLICATION

Infant Pulmonary Hemorrhage in a Suburban Home with Water Damage and Mold (Stachybotrys atra)
Susan M. Flappan, Jay Portnoy, Patricia Jones, and Charles Barnes
Department of Allergy, Asthma, and Immunology, Children's Mercy Hospital, Kansas City, Missouri, USA
Environ Health Perspectives Volume 107 (11): 927-930, November 1999

This is a well documented case of suspected Stachybotrys associated pathology. Good discussion and references.

(Editor)

MEETING REPORT – THE INTERNATIONAL BOTANICAL CONGRESS

(Contributed by Estelle Levetin)

Editor's Note**:** The following report on the IBC was meant for but not included in the last Newsletter issue.
Because Botany is so interconnected with Aerobiology, and because the IBC convenes only once every six years, I thought the report was still much valid and important. I apologize for the delay.

Aerobiology at the International Botanical Congress

From August 1 to 7 1999, approximately 5,000 botanists from all over world gathered in St. Louis, Missouri for the XVI International Botanical Congress. The IBC is held only once every six years, and last met in North America in Seattle in 1969. These congresses are particularly noted for attracting a diverse group of scientists with research interests that span botany in the broadest sense and include mycologists, phycologists, physiologists, ecologists, and others.
Mornings of the Congress were devoted to plenary sessions and afternoons to numerous concurrent symposia. All contributed papers where presented as posters. Symposia were stimulating with topics as diverse as molecular phylogeny, genetically engineered crops, medicinal plants of the tropics, and aerobiology. The IAA and PAAA jointly sponsored a symposium entitled "Aerobiology: The Importance of Airborne Pollen and Fungal Spores in Ecology, Agriculture, and Human Health."
The intent of the symposium was to introduce the field of aerobiology to the greater botanical community, provide a brief overview of its history and current areas of research.

Symposium organizers were Estelle Levetin and Paolo Mandrioli, and the following presentations were given:
1. Paul Comtois: Overview and history of aerobiology
2. Frits Spieksma: Atmospheric pollen and pauci-micronic particles as allergen carriers
3. Giuseppe Frengueli: Phenoclimatic models for pollen forecasting
4. Estelle Levetin: The air spora
5. Christine Rogers: Indoor fungal contamination and mycotoxins
6. Charles Main: Modeling long distance transport of plant pathogens
7. Mervi Hjelmroos Koski: Image analysis and airborne pollen identification

Although, our symposium was scheduled late in the day with 19 concurrent sessions, all the speakers were pleased with the turnout and the audience participation.

During the opening ceremonies of the Congress, IBC President Dr. Peter Raven presented Millennium Medals to eight distinguished botanists in recognition of their lifetime achievements and for "building bridges of knowledge to the Millennium." Among the honorees were two scientists who have made significant impacts on aerobiology: Norwegian palynologist Knut Faegri, a long time member of the IAA and well known to many of us; and British mycologist C.T. (Cecil Terrence) Ingold.

The Aug. 2 Daily Bulletin of the Congress described the achievements of these individuals. Knut Faegri's "influence in botany and education within and outside of Norway is profound. He is co-founder of the University of Bergen, where he has taught and conducted research for many years as Professor of Systematic Botany and Phytogeography. He is author of more than 500 scientific papers, but he has also devoted himself to create a much broader public understanding of science...." Those of us in aerobiology owe much to the many editions of the Textbook of Pollen Analysis by Faegri and Iverson.

C.T. Ingold "has transformed the world of students of mycological research through each of his major works, starting with Dispersal of Fungi...But every contemporary discussion of fungal spore release and dispersal begins with the publication in 1971 of his Fungal Spores: Their Liberation and Dispersal." To this list I would also add the many editions of The Biology of Fungi, which has become standard reading in many Mycology classes.

In summary, the XVI - IBC was intellectually invigorating, and it was also wonderful to see old friends and meet new ones. The America's Center was a comfortable venue and easily accommodated all the concurrent sessions, although it was sometimes rather difficult to rush between presentations in different parts of the center. Congress participants took advantage of the many attractions in St. Louis, ranging from leisurely strolls through the magnificent Missouri Botanical Garden to watching the St. Louis Cardinals play at Busch Stadium. It was a week well spent.

PAAA STUDENT DEVELOPMENT AWARD WINNERS

SCOTT LAURSEN

His Abstract: Simulation of artemisia pollen flux above a sagebrush steppe. SL Laursen & WA Reiners. University of Wyoming, Laramie, WY USA

Scott Laursen was most enthusiastic about his aerobiology work and for being able to attend Aerobiology 2000 as a winner of the the PAAA SDA Award.

Excerpts from his e-m to the PAAA Nslt Editor:

"What a fabulous group of people. I can honestly say I have not attended a conference of any sort that was composed of so many supportive professionals, all contributing to a very unique overall chemistry. I very much enjoyed meeting everyone. I am much happier to match a face and personality to a seemingly endless list of email correspondents with a number of PAAA members. All of who have offered so much to me in the past two years. My research would not exist had it not been for the curious, open, and supportive nature of the individuals attending Aerobiology 2000. Much of the

instrumentation used in the field and the lab for my project was borrowed from individuals networked within this group of aerobiologists. When I began my graduate program, I was amazed with the immediate and overwhelming response from this group to my initial research goals and questions. Samplers were lent to me from across the country. Perhaps even more important, I was offered a tremendous amount of critical expertise and advise that allowed me to avoid the pitfalls that seem to be omnipresent in planning a sampling scheme and then implementing it in the field and in the lab".

"I left the Conference with a much more holistic image of aerobiology as a study. This was the result of attending the entire range of seminars, which covered a large spectrum of research. Even as a newcomer, I felt that the environment was completely open for exchange of thought. I felt my ideas were welcomed, and I very much appreciate all the responses and suggestions regarding the future direction of my research".

"I guess all I can do at this point is to say thank you to everyone within the PAAA … the experience in April made a lasting impact on me that will certainly play out in my future … Thank you for setting up the opportunity for such interaction during Aerobiology 2000 and, equally important, for the assistance in helping me play a part in it".

EVA SALINAS

Her Abstract: INDOOR BIOLOGICAL PARTICLES EXPOSURE AND CLINICAL SEVERITY OF ASTHMA. I Rosas, **Eva Salinas**, C. Calderón, L Martínez, R. Chapela and G. Laguna. Centro de Ciencias de la Atmósfera, Facultad de Ciencias, Universidad Nacional Autónoma de México, Instituto Nacional de Enfermedades Respiratorias, Secretaría de Salubridad y Asistencia. México, DF, México.

Eva wrote the PAAA Nslt Editor:

I thank the PAAA that made possible my participation in Aerobiology 2000 through its program "Student Development Award". The stipend provided allowed me to attend this most interesting Conference where very many indoors and outdoors aspects of the environment were discussed. What I learnt from the sessions, discussions, and lively interactions with the Conference participants will be a big boost for both my interest and understanding of Aerobiology. I need to mention that I also enjoyed very much the stay at the Rensselaerville Institute and the peaceful beauty of the surrounding area.
Hope to be able to attend many other PAAA meetings. Thanks again, PAAA membership!

LATIN-AMERICAN NEWS

GRUPO DE ESTUDIOS EN AEROBIOLOGIA DEL SUR (G.E.A.S.)

The GEAS (Southern Aerobiology Study Group) was started March 1st 2000. Its members: the allergist Dr. Germán D. Ramón,the botanist Dr. Carlos B. Villamil and two young biologists Gabriela Murray and Monica Sonaglioni. All of them are today PAAA members. Gabriela and Monica are in the process of certification as pollen counters by the Harvard School of Public Health, Dept. of Environmental Health, USA.
The GEAS main objective is to establish an Aerobiology Network in Argentina. The Group already has sampling stations in 8 cities: Bahía Blanca, Buenos Aires, Córdoba, Mar del Plata, Mendoza, Paraná, Rosario y Santa Fe. The samplers used (Rotorod), their location, the collection and particle counting technologies are in agreement with approved international standards. Sampling is continuous throughout the year.

Pollen identification is aided by a collection of more than 300 certified pollen slides. Botanical specimens have been deposited in the Universidad del Sur Herbarium (BBB). In addition a registry of the local plants anthesis is kept.
The GEAS has been presenting results in recent Allergy, Botany and Palinology Meetings, and has an Abstract accepted for presentation in Aerobiology 2001. We look forward to hear from the GEAS aerobiologists in North Carolina, and wish them success in reaching their goals.

AEROSAMPLING IN THE DOMINICAN REPUBLIC

Three students of Dr. Antonio Castillo: Karen I. Salomón-Ferrera, Radhamés Ramos-DeOleo and Laura S. Beauchamps-Bonnet were assigned to his project of aerosampling in the city of Santo Domingo. The resulting paper "Pollen identification and counts in Santo Domingo: Spring of 2000 (Identificacion y conteo de polen en Santo Domingo durante la primavera del 2000)"..(received high marks from the School of Medicine Faculty. More significantly, their success has attracted many other students who would like to continue the analysis of slides from Dr. Castillo's station.

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AT THE CLOSING

Mary L. Jelks has sent a draft of her ALLERGY POLLEN KEY WITH IMAGES. It is a 24-page draft of which 18 pages are packed with pollen photos. I counted 168 images. This draft well reflects the dedication of Mary to study the aeroallergens of South Florida. For many years she has been counting slides not only from her home city, Sarasota, but from Tallahassee and Miami as well. At some point she has taken over the review of rods and slides from such distant locations as Guatemala and the Canary Islands. She has gone from mastering microscopic aeroallergen identification to study plants and molds. The present Pollen Key reflects her relatively recent incursion into imaging and desktop publishing. She has gone into those various fields, little related to her former Pediatric Allergy practice, to upgrade hers and our knowledge of subtropical aeroallergens.
I look forward to see Mary's final Pollen Key and to make good use of this needed publication.
Mary Jelks is the author of "Alllergy Plants - that cause sneezing and wheezing" World Wide Publications 1977

(This page contributed by the Editor)