

# International Aerobiology NEWSLETTER

JUNE 2003

ISSUE N° 57

ISSN 0357 451

BI-ANNUAL PUBLICATION OF THE INTERNATIONAL ASSOCIATION FOR AEROBIOLOGY



## Editorial note

This issue pays a tribute to Professor Emeritus Siwert Nilsson by means of an emotive biographic report written by Mervi Hjelmroos. Furthermore, Annalisa Ariatti and Giuseppe Frenguelli have sent us biographic articles about the two recent IAA's Honorary members, Paolo Mandrioli and Frits Spijksma.

The IAA's Newsletter could be an adequate tool to increase the knowledge of the Aerobiology everywhere. Because most of the IAA members come from Europe and North America, I would like to receive news from other different areas, in particular from those in which the low number of IAA members or the activity in this topic is not well known. Therefore, and following the way initiated in issue n° 56 ("Aerobiology in South America" by María Gabriela Murray), Kathryn Thomson from Adelaide brings us the opportunity to know some aspects of the history and present of the Aerobiology in South-Australia. I invite everybody to send reports on the most unknown aerobiological aspects and from the most remotes areas.

Due to the great development of the Internet, we cannot forget its importance at time to distribute information and exchange ideas all over the world. Many Aerobiological Associations, Networks, Universities, Research Groups, etc. have elaborated websites including interesting and a lot information. For this reason, a new section starts in this issue with the aim to spread Aerobiology knowledge through Internet. Please send information on your website with a briefly commentary of it to be included in the future issues.

For this time, IAA's Newsletter will be issued in electronic format at the websites of the IAA (<http://www.isao.bo.cnr.it/aerobio/iaa>) and the Galician Aerobiology Network (<http://www.usc.es/aerobio>). Moreover, and during 2003 it will be sent by e-mail to all IAA members. From now on, printed issue will be only sent if requested. Please let me know if you are interested in. Nevertheless the IAA's members database is not completely updated since many members did not send their data yet. Once more I beg everybody to send the complete address to both, Christine Rogers ([crogers@hsph.harvard.edu](mailto:crogers@hsph.harvard.edu)) and me ([vjato@uvigo.es](mailto:vjato@uvigo.es)).

Finally, I want express my thanks to everybody that have collaborated in this issue and I encourage to IAA members to submit new material in the future. Next Newsletter will be sent in December and the deadline to receive your contributions will be November, 30<sup>th</sup>.

Looking forward to hearing from you

**Victoria Jato**

Newsletter Editor

e-mail [vjato@uvigo.es](mailto:vjato@uvigo.es)

fax +34 988 387001

## Siwert Nilsson, Scientist and Friend (1933-2002)



Siwert Nilsson's career was not limited to pollen morphology. He was a pioneer in the field of aerobiology. In 1973 he initiated a research program in aeropalynology. That same year the continuous measurement of airborne pollen in Stockholm began, with regular pollen reports and forecasts by the laboratory to aid people suffering from pollen allergies. Later, fungal spores were included in the program. Stockholm became the national center for 16 local centers in Sweden, and maintained a national pollen and fungal spore data bank and provided the education and training in the field both nationally and internationally. Siwert was one of the founding members of the International Aerobiological Association (IAA). Siwert worked hard to get international recognition for aeropalynology and to establish it as a discipline for monitoring and predicting airborne allergic pollen and fungal spores.

Siwert organized several meetings and courses on pollen morphology and aerobiology, e.g., the 4<sup>th</sup> International Conference on Aerobiology. He attended conferences, and traveled to countries all over the world to give courses. He loved teaching. Many of his students followed him back to Stockholm to carry out pollen morphological and aerobiological studies leading to the PhD degree. He was honored with many awards and medals, and in 1992 he became Professor in Palynology as a national and international recognition.

Siwert retired 1998, but he continued with his scientific activities. Until the very last moments he was working with pollen morphology, and for the Palynological laboratory in Stockholm. During his retirement years he also devoted more time to his dearest interests: his family, jazz music, philately, and food. Earlier in 2002 he became a very proud grandfather to a beautiful girl.

Siwert's death was a shock, leaving us with a deep sorrow. We all miss him. Siwert will remain in our thoughts as a precious friend, and in our science as an inspiration to continue his visions and insights in palynology and aeropalynology.

Last August, on the 19<sup>th</sup>, Siwert Nilsson suddenly passed away, shocking not only his family and the personnel at the Palynological laboratory in

Stockholm, Sweden but hundreds of his students, Palynologists and Aerobiologists throughout the world. Just 69 years ago he was born in the northern part of Sweden, in the mountains of Jämtland. He received his Ph.D degree from the Institute of Systematic Botany of the University of Uppsala in 1970. Prior to this degree he had already been holding a position at the Palynological Laboratory for 11 years. He was a student and colleague of Professor Gunnar Erdtman. Siwert was appointed to the position of Director of the Palynological Laboratory in 1975, a position he held until his retirement in 1998. Siwert further developed the Palynological Laboratory in Erdtman's spirit as the world's mecca for palynology and aerobiology, with extensive collections and a knowledge base to which everyone had access with a hearty welcome. Siwert was a devoted, fair and amiable leader, and a true diplomat.

Siwert published his first paper on pollen 1962 and over the next 40 years added about 140 papers and several books. He was also very well known as editor of Grana, the oldest international journal on palynology and aerobiology. For 15 years he was the Editor-in-Chief for Grana, and 19 years for the monographic series, the World Pollen and Spore Flora (WPSF).

Siwert was a pollen morphologist at heart, he was deeply involved in the pollen morphological studies of Gentianaceae and "the biggest of all", Apocynaceae. Pollen spores were his life, and he saw them everywhere. As one of his students related, he even compared the chocolate drizzle on Belgian pralines to pollen morphological details. At his very last moments he also put human values on the pollen grains he most loved.

Siwert Nilsson's career was not limited to pollen morphology. He was a pioneer in the field of aerobiology. In 1973 he initiated a research program in aeropalynology. That same year the continuous measurement of airborne pollen in Stockholm began, with regular pollen reports and forecasts by the laboratory to aid people suffering from pollen allergies. Later, fungal spores were included in the program. Stockholm became the national center for 16 local centers in Sweden, and maintained a national pollen and fungal spore data bank and provided the education and training in the field both nationally and internationally. Siwert was one of the founding members of the International Aerobiological Association (IAA). Siwert worked hard to get international recognition for aeropalynology and to establish it as a discipline for monitoring and predicting airborne allergic pollen and fungal spores.

Siwert organized several meetings and courses on pollen morphology and aerobiology, e.g., the 4<sup>th</sup> International Conference on Aerobiology. He attended conferences, and traveled to countries all over the world to give courses. He loved teaching. Many of his students followed him back to Stockholm to carry out pollen morphological and aerobiological studies leading to the PhD degree. He was honored with many awards and medals, and in 1992 he became Professor in Palynology as a national and international recognition.

Siwert retired 1998, but he continued with his scientific activities. Until the very last moments he was working with pollen morphology, and for the Palynological laboratory in Stockholm. During his retirement years he also devoted more time to his dearest interests: his family, jazz music, philately, and food. Earlier in 2002 he became a very proud grandfather to a beautiful girl.

Siwert's death was a shock, leaving us with a deep sorrow. We all miss him. Siwert will remain in our thoughts as a precious friend, and in our science as an inspiration to continue his visions and insights in palynology and aeropalynology.

**Mervi Hjelmroos-Koski**

We have in our possession a copy of an article entitled *Atmospheric Pollen In The City Of Adelaide And Environs* by Frank V. Mercer published in Transactions of the Royal Society of South Australia, 63(2), 372-383, 22 December 1939. We believe this to be the first known publication detailing airborne pollen types in our city; namely Grasses, Plantain, Chenopods, Cypress, Ash, Plane, Elm, Pine and Wattle among others including unknowns. The technique used by Mercer was similar to that described by Wodehouse (1935). A drop of melted methyl green glycerin jelly was placed in the centre of a microscope slide and spread out to about the area of a 3/4 inch coverslip. These slides were exposed horizontally in specially constructed weather-vanes. Throughout the work the area counted was about four square centimetres. The counting was done with a mechanical stage using a 6X eyepiece and 8mm objective. Higher powers were used to identify the grains when necessary. Mercer, a researcher belonging to the Department of Botany, University of Adelaide, described the succession and percentages of different pollen grains in the air from month to month in Adelaide. Frank Mercer's research continued for a further year giving rise to a second publication with the same title in Transactions of the Royal Society of South Australia, 65(1), 11-13, 25 July 1941. Mercer was able to go on and identify certain unknown grains, (examples being Olive, Salvation Jane, She-Oak) and as a result of the two years' observations a generalised picture of the pollen grain cycle in Adelaide was presented.

About twenty eight years later, the literature was reviewed, ie. *Review Of Airspora Analysis In Relation To Allergic Respiratory Disease*, South Australian Clinics, 4, 1, 56-61 by AE Gale. 1969. This review drew focus to the magnitude of the problems facing research in this area just before an important study in Adelaide was about to begin.

## Aerobiology in Adelaide - South Australia

A five-year daily airspora and respiratory symptom data set was collected between 1969 and 1974. The original research was funded by the South Australian Asthma Foundation and the team comprised medical personnel, Drs Ron Munro Ford, Sydney Birdseye, Peter Bateman, Allen Gale and Mrs Chris Starzynski, and meteorologists, John Hogan, Allen Brunt and Angus Robin. This research attempted to identify relationships between airspora abundance and types, environmental conditions and respiratory symptoms incidence and intensity. A substantial data base was compiled but analysis was not completed due to funding restrictions. However, in 1988, Bill Boyd and Mick Howland of the University of New England Northern Rivers, Lismore, NSW, took up the challenge. In November 1998, Boyd and Howland's statistical analyses appeared in print. Refer: *Airspora and Respiratory Symptoms, Adelaide, South Australia* by WE Boyd, MB Howland, AE Gale and KL Thomson published in *Current Concepts In Pollen-Spore And Biopollution Research: Prof Sunirmal Chanda 60th Birth Anniversary Felicitation Volume*. Of those known aeroallergens, the pollen taxon Oleaceae is of particular interest, since it is important in this Mediterranean-climate city to an extent not previously demonstrated in other Australian cities. Following cessation of the "Asthma- Weather-Airspora Study", Gale and Starzynski continued sampling at four sites. The results of the analyses from the sites have been published. *Statistical Reports Of The Pollen And Mold Committee Of The American Academy Of Allergy*, Gale, AE & Starzynski, CS. 1972-1981. This work was funded by Dr Gale and acknowledged by Professor Bruce

Knox at the NHMRC aerobiology workshops in 1979. Please see next paragraph. A series of National Health and Medical Research Council (NHMRC) workshops on allergic diseases was conducted during 1979. At the workshops on aerobiology, Gale presented information and displayed an index of potential aeroallergens and indicated the need to clarify potential aeroallergens in Australia. Recommendation from Day 1 of the workshop: "The prime need in such studies appeared to be the improvement of sampling efficiency and more accurate identification of aeroallergens."

In 1982 Dr Allen Gale accepted the task of editor of the International Association for Aerobiology (IAA) newsletter aided by Dr Wolfgang Wilde as assistant editor. They were responsible for issue no. 17 (January 1983) through to issue no. 24 (June 1986). Eight newsletters in total. Kathryn Thomson has been the IAA regional dues collector for Australia and New Zealand since 1988. Currently there are eight Australian members, three of whom are from Adelaide, and one sole member in New Zealand. Writing this short piece has given me a golden opportunity to mention the outstanding contribution allergist Dr Sydney Birdseye, now retired, has made to the discipline of aerobiology in South Australia.

From 1956 through to the early 1990s, Dr Birdseye produced what was known as the *Allergy Alert* report on behalf of the Asthma Foundation of South Australia for which he received absolutely no funding. The *Allergy Alert* was related to several meteorological factors and appeared in the media. Dr Birdseye's photo can be seen on Asthma South Australia's website.

Go to [www.asthmasa.org.au](http://www.asthmasa.org.au) then click [MORE] symbol next to pollen count headline on the home page. Kathryn Thomson commenced pollen counts in September 1988 using a trap sited on the roof of the Colonel Light Centre, located in the heart of Adelaide city. In January 1994 the trap was then moved to the roof of The Queen Elizabeth Hospital, Woodville South, where it stayed for about a year. In January 1995 the trap was re-located to a home garden in a residential area. Again these studies were funded by Dr Allen Gale. These reports were never published.

It had been the aim of the Adelaide Aerobiology Laboratory to generate a daily pollen count which hayfever and allergy sufferers as well as the 300,000 asthma sufferers in South Australia could access via the media. In mid 1997 financial sponsorship by Schering Plough and National Pharmacies, under a working agreement engaging Adelaide Aerobiology Laboratory by Asthma South Australia, made this possible. From October 1999 to the present day financial sponsorship has been entirely funded by National Pharmacies. A daily pollen count features in the weather pages of *The Advertiser* newspaper, shown on Channel 9 television evening news during the weather segment and can be seen in store at branches of National Pharmacies. Also available on Asthma South Australia's website. Go to [www.asthmasa.org.au](http://www.asthmasa.org.au).

Together with the all important funding and support, the Adelaide Aerobiology Laboratory is dedicated to continue to generate this source of information.

by Kathryn Thomson, Adelaide Aerobiology Laboratory, PO Box 401, Hindmarsh, South Australia, 5007.

Please direct any correspondence to the above postal address or:

[sisyphus2@ozemail.com.au](mailto:sisyphus2@ozemail.com.au).

## Lunch from the sky Mites feast on pollen rain in New Zealand

Red mites turned rocks red as they swarmed in their thousands on the Port Hills 200m a.s.l. above Christchurch City, New Zealand in December 2002 (43°35'S; 172°45'W). Hand held vacuum cleaner sampling revealed a *Balaustium* species of Erythraeid mite which was feasting on the pollen rain deposited on the rocks.

On 27 September 2001 a swarm of erythraeid mites were found fossicking on a window ledge and bench of my laboratory in central Christchurch. They were feeding on pollen blown in through the window. I captured a small colony which fed on a wide variety of pollen, e.g., Rose, *Pinus*, broom, nasturtium and kaka beak. The captive mites were fed only pollen and water. After two months, I had a population of adults with one female producing a batch of eggs. These mites were also a species of *Balaustium*. Newell (1963, JI. Parasitol 49(3) 495-502) described this cosmopolitan genus as a generalist feeder taking prey, pollen and biting humans Grandjean (1946 Bull de Mus. Nat Hist. Ser.2, 18(4)) reported p. 338 on a *Balaustium* species in France, "ces larves mangent du pollen" and expressed surprise as all known erythraeid larvae were parasitic. He raised his species to adults on a pollen diet.

The high populations of *Balaustium* on the Port Hills rocks coincide with the maximum pollen production period of surrounding temperate grasslands. The highest mite numbers were found on some ridge top rocks. I am interested in hearing from other workers who have observations or thoughts on the aetiology of pollen fall in relation to topography as it may be an important input to terrestrial invertebrates.

John Clark: [clarkj@cpit.ac.nz](mailto:clarkj@cpit.ac.nz)

## Young Aerobiologist Award

The International Aerobiology Association is pleased to announce a new annual award aimed at supporting studies in Aerobiology. The *Young Aerobiologist Award* will be awarded annually to a student or young researcher (under 35 years old) to support activities within the framework of the aims of the IAA. These include such activities as fieldwork, travel costs for visiting other laboratories, support for attending appropriate courses or travel to conferences.

One award of \$US 1000 will be granted each year.

### Eligibility

Applications are invited from persons studying any aspect of aerobiology and who has been an individual member of the IAA for at least 2 years.

### Basis of the Award

The application will be evaluated using the following criteria: the qualifications of the student, the importance of the proposed project and its likely contribution to the science of Aerobiology.

### Application

Application forms (one for the applicant and one for the applicant's supervisor) will be available from the IAA web page.

Applications should be made in writing to and include:

- (i) A short *CV* outlining the applicant's qualifications and current course of study or employment.
- (ii) A description of what the award would be used for.

(iii) A brief description of how the award would benefit the applicant's career and their contribution to aerobiology.

(iv) A supporting statement signed by the applicant's supervisor or employer.

The application (no more than 2 pages A4 or equivalent) should be sent by the applicant, together with a statement of support from their supervisor, to the Secretary of the International Aerobiology Association:

Dr. Christine Rogers

IAA Secretary

Dept. of Environmental Health

Environmental Science and Engineering

Harvard School of Public Health, Landmark Center

PO Box 15677

401 Park Drive

Boston MA 02215

### Deadline

Applications should be received not later than February 1 each year.

The applications will be evaluated within 30 days of the expiry of the deadline and applicants will be informed of the panel's decision as soon as possible.

Application form is available at IAA's website:

<http://www.isao.bo.cnr.it/aerobio/iaa/>

## Aerobiology in the Internet

<http://www.isao.bo.cnr.it/aerobio/iaa/>

This is the official website of the International Association for Aerobiology. From this page you can access to the IAA's Newsletter. Some of the contents included in this page are referred to:

- IAA official notices including the Election results, IAA Executive Committee and Council and Statutes.
- IAA Quadriennial Congresses with reference to the past and upcoming meetings.
- Extensive reports of the IAA International Aerobiology Courses (Basics and Advanceds), with photographs of the participants and information on the Course's activities.
- Information on upcoming events linked to Aerobiology.
- Application form to be an IAA membership and useful rules and recommendations to construct your own website.

<http://www.uco.es/rea/>

In this site you can find the aerobiological information regarding Spain elaborated by the Coordinator Centre of the Spanish Aerobiology Network (REA).

The page include National pollen forecast updated once a week during the whole year, with some information accessible to all kind of public and other restricted to subscribers, mainly for other communication media which disseminate the information in different formats. A complete address book, with the contact details of all REA members, as well as links to the pages of Regional Centres for more local information are also included. As technical branch of the Spanish Association of Aerobiology (AEA), the main page is linked directly to the web of the Association.

Other contents of the page are the data of the fungal spores counts carried out in some spanish localities, access to the different volumes of REA journal, in which are compiled the annual data of the REA sampling stations and a complete meteorological information, with links to the most accurate meteorological services.

<http://www.usc.es/aerobio/>

This is the website of the Galician Aerobiological Research Network (RIAG). From on, now you can also access to the IAA's Newsletter in this site.

Some information about the RIAG (history, research topics, publications, biogeographic and climatic characteristics of the aerobiological monitoring stations, etc.), is also included. You can consult the pollen calendars and annual pollen information from the Galician monitoring stations since 1992. Botanical, palinological and allergenic information of the most important pollen types present in the territory are also included. Lastly, a questionnaire is available for all those allergy sufferers that wish collaboration and express their opinion. Information up-to-date and prediction pollen are available by link to Galician Aerobiological Network (R.G.A.): <http://www.siam-cma.org/aerobiologia/>.

[www.aerobiology.ch](http://www.aerobiology.ch): a new tool for networking

The Swiss Society of Aerobiology (SSA) welcomes you to their Internet site. We hope that it will provide you with useful information and that it will enable you to make interesting contacts. This site is dedicated to the exchange of information concerning aerobiology and related themes in Switzerland and worldwide. Please, contribute!

Aerobiology draws on many other scientific disciplines: this site offers a discussion platform. If this site appeals to you, if you work in an area related to aerobiology, in a field where aerobiology could be applied or in a field that could be applied to aerobiology, please do not hesitate to make use of it. The "Networking" section intends to allow people working in the various fields covered by aerobiology to learn about each other and start new collaborations. There you can present yourself and your activities. The "Forum" section allows to interact with your colleagues: they answer your questions - you answer their questions.

Register now! The registration process was built to prevent undesirable topics to appear on the site. Once registered, your E-mail and the password you proposed allow you to login, access all the pages, insert your own information and ask/answer questions.

## NEW IAA'S HONORARY MEMBER



**Dr. Frits Th.M. Spieksma**

**F**rits Th.M. Spieksma studied Zoology and Botany at Leiden University in The Netherlands, where he then started his career as Junior Research Fellow (1963-1967), then Full Research Fellow (1967-1970) and then Senior Research Fellow (1970-1986) at the Department of Allergology in the University Hospital.

From 1980 he was Director of the Aerobiology Laboratory, and from 1986 to 1999 was Associated Professor of Allergological Aerobiology at the Department of Pneumology at the University Hospital of Leiden. In 1989 he was Contract Professor at the Faculty of Science at the University of Perugia.

From 1963 to 1973 his scientific research was above all directed at the ecology and biology of the house-dust mite, which led him to the discovery of the allergenic properties of *Dermatophagoides pteronyssinus*. Regarding this subject Frits Spieksma, working with the young biologist Marise Boezeman who later became his wife, obtained his PhD in 1967.

The identification of the house-dust mite as a main source of allergens present in house dust at first caused a certain disbelief in the community of allergologists, but the growing number of studies on the topic which confirmed this theory enabled Frits Spieksma to gain the attention and appreciation of the international scientific community.

From 1973 to 1983 he concentrated most of his research on airborne pollen in relation to pollinosis with the compilation of the first pollen calendars and the elaboration of the first forecasting systems. From 1983 he paid closer attention to airborne fungal spores and the role of sub and paucimicronic particulate as a possible cause of respiratory allergens. From the beginning of the 1980's he began scientific collaboration with many aerobiologists in various countries, widening the research on the influence of environmental conditions on the starting date and on the trend of pollination of many arboreal and herbaceous taxa.

All in all Spieksma has published around 100 articles in many international journals, which have made a significant contribution to the spreading of fundamental knowledge in the field of aerobiology. He has held many positions in international Associations, such as Secretary, and then from 1990 to 1994 President of the International Association for Aerobiology, and was co-chairman of the Aerobiology sub-committee of the EAACI, scientific secretary of the 6th International Congress on Aerobiology, and currently, although having retired in 1999, he continues his work in the aerobiological field as organizer and coordinator of the European Courses on Basic Aerobiology.

The commitment of Frits Spieksma to aerobiological research and to the organization and spread of aerobiological knowledge will not be abandoned and many researchers will continue to thank Frits for everything he has done for aerobiology around the world.

**Giuseppe Frenguelli**

## NEW BOOK

### Collection « Men and... », special report RAGWEED, *Ambrosia*, biological pollutants....

**I**t was necessary to round-up the studies undertaken 20 years ago by the AFEDA (French Association for Ragweed Study).

Therefore, this book is the most complete and modern dealing with ragweed and its health implications. From this point of view, it is unique.

Composed of 288 pages and a large iconography (135 figures), this book offers a total knowledge and, therefore, allows people to act against what is already considered as a real plague, listed among **biological pollutants**.

This book is divided in 19 chapters. They include the history of pollinosis generated by **ragweed**, first in North America, and then in Europe. They draw up a list of every single species worldwide with their pollen (a photography is available for most of them). Their spatial and climatic repartitions are detailed as their ecology, so critical to know.

The disease is carefully presented as the treatments required, without forgetting personal advice for a better protection. The South-East being the cradle of the invasion in France, the pollen data reported in Lyon, France and in the Region allowed us to establish a **predictive model of pollination**.

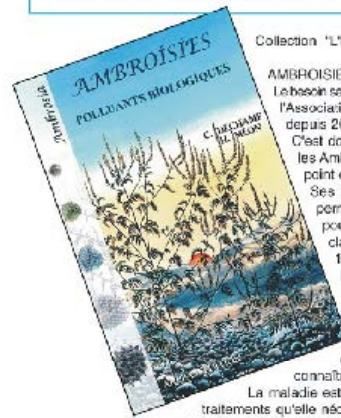
We can no longer ignore, in the 21<sup>st</sup> century, what is this debilitating disease that must be eliminated or at least confined and fought, from its spreading place, the Rhône Valley, because it represents a threat for France.

Epidemiology, legislation, the AFEDA's role, remote sensing... are some of the ideas composing the most complete book ever written.

*The texts were written or coordinated by the president and vice-president of the AFEDA : Doctor Chantal DÉCHAMP, allergist, and Henriette MÉON, doctor of science, expert in palynology. Dr. C. Déchamp received from the French Academy of Medicine, the award of Environment and Health in 1985 and was named prize winner in 1987; in 1994, she was awarded the Épidaure of Research in Medicine by the newspaper Le Quotidien du Médecin. Dr. H. Méon is a CNRS researcher for the University Claude Bernard (Lyon). Eleven other scientists and doctors, from every specialization (CNRS, INRA, INSERM...) contributed to this book.*

**To buy this book explanations are sent by [afeda.wanado.fr](http://afeda.wanado.fr) (27 Euros and stamps that are different: please ask to afeda).**

### AMBROISIES, *Ambrosia*, polluants biologiques... La nouvelle référence ... scientifique et grand public !



Collection "L'homme et...", Mémoire spécial

AMBROISIES, *Ambrosia*, polluants biologiques...  
Le besoin se faisait sentir de faire le point sur les études entreprises par l'Association Française d'Etude Des Ambrosiées (AFEDA) depuis 20 ans.

C'est dans l'ouvrage le plus complet, le plus moderne, sur les Ambrosiées et leurs conséquences sur la santé. De ce point de vue, il est unique.

Ses 288 pages et sa large iconographie en couleurs permettent de tout connaître et, en conséquence, de pouvoir agir contre ce qui est déjà un véritable fléau, classé parmi les polluants biologiques.

19 chapitres se partagent l'ouvrage. Ils rappellent l'histoire de la pollinose qui engendre l'Ambrosiade, d'abord en Amérique du Nord, puis en Europe. Ils répertorient toutes les espèces mondiales et leurs pollens, pour la plupart photographiés.

Leur répartition géographique et climatique est détaillée ainsi que leur écologie, si importante à connaître.

La maladie est exposée avec grand souci du détail ainsi que les traitements qu'elle nécessite, sans omettre les conseils personnels pour se mieux protéger. La région lyonnaise et le Nord-Isère ayant le triste privilège d'être le berceau de l'invasion de la France, les comptes de pollens relevés à Lyon et dans la région ont permis l'élaboration d'un modèle prédictif de pollinisation.

On ne peut plus ignorer, au XXI<sup>e</sup> siècle, ce qu'est cette maladie invalidante qu'il faut essayer d'éradiquer ou du moins de circonscire et de combattre, à partir de son foyer d'expansion, car elle menace toute la France.

Epidémiologie, législation, rôle de l'AFEDA, télédétection, etc. sont autant d'autres points de vue qui font de cet ouvrage le plus complet qui soit.

Les textes sont écrits ou coordonnés par la présidente et la vice-présidente de l'AFEDA.

Le docteur **Chantal DÉCHAMP**, médecin allergologue,  
**Henriette MÉON**, docteur es-sciences, spécialiste de palynologie.

C. Déchamp a reçu de l'Académie de Médecine, en 1985, le prix Environnement et Santé et en a été nommée lauréate en 1987; en 1994, le prix Épidaure de la Recherche en Médecine et Ecologie lui a été décerné par le Quotidien du Médecin. H. Méon est chercheur CNRS auprès de l'Université Claude-Bernard.

Onze scientifiques et médecins, de toutes disciplines (CNRS, INRA, INSERM...) ont collaboré à l'ouvrage.

ARPPAM EDITIONS  
Collection "L'homme et..."

## NEW IAA'S HONORARY MEMBER



### Dr. Paolo Mandrioli

**P**aolo Mandrioli is a scientist of highest international stature in the field of aerobiology. For the past twenty years, he has led the development of the discipline, striving for advancement in valuable and innovative ways. He has contributed immensely to the basic science of aerobiology focusing his research on the physical principles

underlying aerobiological phenomena. Paolo Mandrioli has promoted the expansion of aerobiology by establishing measurement networks, professional associations, and a refereed journal that have been recognized at national and international levels. He is well known for endorsing aerobiological education and instruction and striving to have aerobiology recognized as a true discipline in Academia.

Paolo Mandrioli was born in Bologna on 23 April 1943. In 1962, he graduated from high school in Chemistry and soon afterward began conducting research on airborne pollutant particles in urban areas at the Scientific and Experimental Observatory of Meteorology on Mt. Cimone, Italy. In 1966, he joined the National Council of Research, first at the Institute of Physics of the Atmosphere in Rome, then at the Institute of Physics and Chemistry of the Atmosphere in Bologna. He obtained a Doctoral Degree in Biology from the University of Bologna, Faculty of Science in 1972, presenting a dissertation on the dispersal of fungal spores and bacteria in the atmosphere. Paolo Mandrioli is currently a Senior Researcher at the Institute of Atmospheric Sciences and Climate in Bologna and has served as the Director of the Aerobiology Unit since 1980. In 1989, he became Consultant Professor of Aerobiology at the School of Allergology, Faculty of Medicine, at the University of Pavia and currently holds the position of Professor of Aerobiology in the Faculty of Environmental Sciences, University of Urbino.

Paolo's interest in the physical processes in aerobiology led to his participation in the Co-operative Convective Precipitation Experiment (Montana, US), where he conducted research on biological aerosols at high altitude early in the eighties. The same research focus was pursued by him in the Italian Group ALPEX, with high elevation measurements of atmospheric aerosol from aircrafts. From 1981 to 1983, he directed a project Italy-US, implemented with the US National Center for Atmospheric Research, on the role of the biological aerosol in the formation of convective precipitations in the Po River valley. In 1984, Paolo Mandrioli was instrumental in the foundation and the consequent research activities of the Group for the Study of the Chemistry of Atmospheric Deposition in Northern Italy. Shortly thereafter, he conducted a series of aerosol measurements campaigns on the Mediterranean Sea to investigate long-distance transport and participated in Project "Antarctica" on biological aerosols. His most recent research activities include two European Community Projects, the Advanced System of Teledetection for Healthcare Management of Asthma and the System for Pollen Related Information Gathering.

Paolo's contributions in the field of aerobiology are not confined to research. He has always been an advocate of promoting interactions among scientists and professional aerobiologists. Driven by his conviction that aerobiology must find its own identity through the creation of strong national and supranational associations, he organized

the 1st National Congress on Aerobiology in Cagliari, Sardinia, which paved the way for the establishment of the Italian Aerobiology Association in 1984. From 1985 to 1990 and again from 2000 to 2002, he served as the Association's President and is now an honorary member.

Since 1985, Paolo Mandrioli has been the coordinator of the Italian Aeroallergen Network (RIMA), an organization hosted by the National Council of Research. RIMA's activity is focused on the monitoring of atmospheric concentration of allergenic pollen and fungal spores and, with its nearly 100 monitoring stations throughout Italy, is part of the European Aeroallergen Network, to which Paolo energetically collaborates. In this role, Paolo Mandrioli has championed efforts to achieve standardization of aerobiological measurements and recently his proposal for a standard method for sampling and counting of airborne pollen grains and fungal spores has been recognized by the Italian Organization for Standardization. The method has been officially adopted by the RIMA.

In addition, Paolo Mandrioli has applied his knowledge of aerobiological principles to the protection and conservation of the Italian cultural heritage. His commitment in this sector led to a number of public initiatives and the publication, both in Italian and in English, of "Cultural Heritage and Aerobiology".

Paolo has been very active in aerobiology beyond his nation. His endless efforts to promote aerobiology at the international level and his unrelenting commitment to the international scientific community paved the way to his election as President of the International Association for Aerobiology in 1994. The establishment of "Aerobiologia - Journal of the Italian Association of Aerobiology" in 1985 and Mandrioli's dedicate editorship of this journal, which was later renamed "Aerobiologia - International Journal of Aerobiology", attests to his drive to strengthen the foundation of the discipline and elevate the visibility of the aerobiology within the scientific community.

Paolo Mandrioli's commitment to future generations of aerobiologists has led to a series of educational initiatives. In 1994, in collaboration with Eugenio Dominguez from the University of Cordoba and Paul Comtois from the University of Montreal, he founded the Advanced Aerobiology course series sponsored by the International Aerobiology Association to teach the scientific principles at the foundation of aerobiological sampling, analyses, and the sound interpretation of aerobiological observations. The energy he brought to the educational sector has led to the publication of "Methods in Aerobiology" dedicated to the future students of aerobiology.

Clearly, Paolo Mandrioli is a distinguished aerobiologist. He has authored nearly 150 papers in national and international journals. Over the past two decades, he has delivered more than 100 communications at scientific Congresses, Conferences and Workshops. He has founded and directed national and international professional societies and journals. Paolo is an outstanding educator. After many years of success, Paolo Mandrioli remains vibrant, energetic, and innovative. We who study, investigate, and work in aerobiology are very fortunate that he is still at the prime of his career and will be in the forefront of our discipline for many years to come.

**Annalissa Ariatti**

## Doctoral Thesis

On March the 6th 2003, at the University of Almería, in Spain, PhD Silvia Sabariego Ruiz defended her Doctoral Thesis entitled “*Aerobiological study of pollen and spores of the atmosphere of Almería: models of prognosis and the incidence of sensitization in the atopic population*”, under supervision of Dr. Consuelo Díaz de la Guardia (University of Granada), Dr. Juan F. Mota (University of Almería) and Dr. Francisca Alba (University of Granada).

This doctoral thesis presents an aerobiological study of the pollens present in the atmosphere of the city of Almería (south-eastern Iberian Peninsula), as well as spores from the most frequent local fungi. The seasonal and daily fluctuations of the different taxa, as well as the influence of the meteorological parameters on these has been analysed. In addition, models have been formulated for the prognosis of the most significant pollen and spore types to be used as preventive measures in pollinosis. Finally, a pollen calendar has been drawn for this city and the incidence of sensitivity to the different pollens and spores has been studied in an atopic populational sample.

The aerobiological sampling was performed for four years (1998-2001) using a volumetric Hirst-type collector (Lanzoni spore trap) located in the centre of the city of Almería at 23 meters above the level of the soil. The sampling followed the methodology proposed by the Spanish Aerobiology Network. For the sampling of the allergic population, a total of 500 patients treated at Torrecárdenas Hospital of Almería for some type of clinical symptoms were considered.

In the atmosphere of the city of Almería, a total of 47 different types of pollen were identified, the most representative, in order of abundance, being: *Olea*, *Urticaceae*, *Chenopodiaceae/Amaranthaceae*, *Palmae*, *Quercus*, *Cupressaceae*, *Pinus*, *Casuarina*, *Artemisia* and *Poaceae*. The total annual quantities of pollen gradually rose over the four sampling years, a total of 13,096 grains being collected in 1998 versus 25,114 in 2001. This increase appears to have resulted from the progressively heavier rainfall during these years, which triggers an immediate rise in pollen production of species in semi-desert zones. In terms of the seasonal evolution of the total-pollen values, although pollen was detected throughout the year, the greatest concentrations were registered from February to June, this latter month accounting for 67% of the total annual pollen.

From August to October, a new rise was appreciable, due to the pollen production of summer-autumn taxa, such as *Palmae* and *Casuarina*. On the contrary, the lowest concentrations were found in November and December. The daily patterns noted for most taxa presented hourly intervals of very high maximum concentrations as a result of the hot climate, notably *Platanus* (10:00-23:00 h), *Chenopodiaceae/Amaranthaceae* (9:00-19:00 h) and *Palmae* (6:00-15:00 h). The correlation between pollen levels and meteorological parameters indicates that temperature, sunlight hours, and rainfall are the variables that most directly influence the atmospheric levels of pollen. The resulting predictive models reveal that the concentration on the previous day is the best predictive variable. Of the models formulated, five succeeded in estimating more than 50% of the variation in atmospheric pollen levels, the other models predicting more than 21%. The pollen calendar for the city of Almería is distinguished, in qualitative terms, by such taxa as *Fabaceae*, *Ricinus*, *Tamarix* and *Thymelaeae*, often not included in other calendars prepared in Spain, and quantitatively by the high incidence of *Palmae*, *Artemisia* and *Casuarina*. The highest frequency of positivity in cutaneous tests has been for *Olea* pollen (66.2%), followed by that of *Chenopodium* (47.8%), *Salsola* (42%), *Poaceae* (35.8%), *Artemisia* (30.4%), *Parietaria* (25.4%) and *Plantago* (23.4%).

The fungal spores analysed in this study belong to *Alternaria* and *Cladosporium*, which reached highly significant annual values ranging from 52,608 spores (1999) to 118,199 spores (2001). These particles are present in the air throughout the year, reaching their highest levels from May to October. The correlation with the meteorological variables reveals a significant positive association with temperature, sunlight hours and accumulated precipitation, but negative with daily rainfall. Daily patterns show that the spores of these genera are present in the atmosphere during all hours of the day at similar levels. Finally, the spores of *Alternaria* registered 9% positivity in cutaneous tests, while *Cladosporium* reached only 1.8%.

**Dr. Sabariego was awarded full marks with honours**

**E**ric Caulton, Director of the Scottish Centre for Pollen Studies has been awarded a Ph.D. by published works for a Thesis entitled, “PALYNOLOGICAL CONTRIBUTIONS TO AEROBIOLOGY IN SOUTH-EAST SCOTLAND”. The examining board comprised Professor Paul Read (Supervisor), Dr. Peter Burt and Dr. K. Donaldson (External Examiners) and Dr. Teresa Fernandez (Internal Examiner).

**This Ph.D. is the first of its kind to be awarded by Napier University,**

### Portuguese Aerobiology Network First Report

Portuguese Aerobiology Network (RPA) is a very young network, setted-up at the end of 2000, and comprising 6 monitoring sites at present. On last 14th February it held its first meeting at the University of Évora, a historical and UNESCO protected town of South Portugal. The event was organized by Prof. Rui Brandao and Dr<sup>a</sup> Elsa Caeiro and it was attended by representatives of all monitoring centres.

The programme was mainly concerned with the management and technical aspects of the airborne pollen monitoring process including preparation of the impaction surface adhesive, processing of recoveries and other procedures. An open discussion was established on measures to implement standardisation and quality control procedures, formats on data exchange and dissemination of results or operational information by web (<http://www.spaic.pt>). It was decided that the group of Funchal (island of Madeira) will host next meeting in 2004.

A brief report was published on-line.

**Rui Brandao**  
Coordinator of RPA (University of Évora)  
[ruibrand@uevora.pt](mailto:ruibrand@uevora.pt)

### PALYNOS

Since the issue N° 25/1 June 2002, PALYNOS (the Newsletter of the International Federation of Palynological Societies) is published only in electronic format. Paper copies are only sent if they are requested by a Palynological Society whose members have not facilities to access to electronic format.

**Sixth European Course on Basic  
Aerobiology (SECBA)  
August, 7th - 13th, 2003**

**R**ecommended by the International Association for Aerobiology next August, 7th to 13th 2003, will be held in Poznan (Poland) the SIXTH EUROPEAN COURSE ON BASIC AEROBIOLOGY (SECBA). The Course will give an introduction to Aerobiology with practical training (microscopy). The Certificates will be presented to participants who pass the end of the course examination. It will be organized by Dr. Alicja Stach from the University of Medical Sciences in Poznan (Poland) and Dr. Frits Spijksma from Leiden University Medical Center (The Netherlands) and being the Secretary Dr. Magdalena Ratajczak from the Adam Mickiewicz University.

**Please contact Dr. Alicja Stach ( [ambrozja@man.poznan.pl](mailto:ambrozja@man.poznan.pl) ) for further information or the website: <http://www.geoinfo.amu.edu.pl/wngi/g/ibczig/secba>**



**XI International Palynological Congress  
Granada (Spain). 4th-9th July 2004**

**ORGANISED BY**  
Spanish Palynological Association (APLE)  
International Federation of Palynological Societies (IFPS)  
University of Granada  
Estación Experimental del Zaidín (CSIC)

**O**rganised by the Spanish Palynological Association (APLE), the 11<sup>th</sup> International Palynological Congress will be held in Granada (SPAIN), 4th to 9th July 2004.

The provisional scientific programme includes two sessions on aerobiological aspects. The first one, AEROBIOLOGY, enclosing: Basic Aerobiology/ Monitoring/ New Techniques: Pollen and Fungal spores, Forecasting Pollen, Pollen Dispersal / Long Distance Transport, Applied Aerobiology: Agriculture, Cultural Heritage and Climatic Changes.

The second, POLLEN AND ALLERGY, embraces topics as Molecular and Cellular analysis of Pollen Allergens, Clinical aspects of allergenic pollen and a Satellite Symposium of *Olea europaea* pollen allergy.

Second circular: July 2003  
Deadline for Abstracts: 15 January 2004  
e-mail: [eurocongres@eurocongres.es](mailto:eurocongres@eurocongres.es)  
**More information: [www.11ipc.org](http://www.11ipc.org)**

**8th ICA in Neuchâtel (Switzerland)  
21 - 25 August 2006**

❖ **"Aerobiology: towards a comprehensive vision"**

With the beginning of the new millennium, the organizers of the 7th ICA, and every aerobiologist with them, wished to see aerobiology take off from the stagnant "plateau" it has reached in its development. The Montebello Congress has given the impulse to that process, then we aerobiologists are all responsible for transforming thoughts into facts and implementing our exciting ideas in everyday tasks.

Aerobiology was basically developed at the junction of several traditional sciences just to answer questions specifically concerning these sciences. Since then, aerobiology has become a science in its own right - a multidisciplinary one. In parallel, during the past decades, traditional sciences and technology have achieved spectacular breakthroughs. More than ever it is impossible for a few researchers to master all the implications of one single field. This fact underlines the need for renewed collaboration to face new challenges. But even if very effective groups are working together all around the world, the integrated or cooperative thought which is necessary to tackle such complex systems has not yet been generalised in the aerobiology community. As a consequence, aerobiology has not fully benefitted from the advances realised in other fields and technologies. In fact, how many people working in the field of aerobiology consider themselves as "aerobiologists"?

Now, it is time to transform aerobiology from a multidisciplinary science into an integrated science, similar to ecology, which reached this status in the course of the last 20 years. During the four years that separate us from 2006 and in the perspective of the 8th ICA, we would like to encourage closer collaboration between aerobiologists and scientists working in related fields in order to achieve a more meaningful "aerobiological spirit". Only the attention paid to that human factor will allow all of us to benefit from the fruits of the advances in particular fields.

It may imply organizational and educational efforts and creativity which in turn will also contribute to the motivation of young aerobiologists with an exciting scientific target : to see, from the collection of contributions we bring along, more than the sum of these contributions, the emergence of a more global understanding of the aerobiological phenomena.

20 years after the 3rd ICA in Basel, the organization of the 8th ICA in a different linguistic region of Switzerland, a country at the geographical centre of Europe, with a tradition of neutrality, diplomacy and cooperation, will be symbolic of the synergy to which aerobiologists aspire with the development of new relationships.

❖ **Where? Neuchâtel**

Situated in the western, French speaking part of Switzerland, the beautiful and pleasant region of Neuchâtel, between the lake and the Jura Mountains, has been inhabited for more than 5 thousand years. In the middle of the "Watch Valley", surrounded with vineyards, Neuchâtel is also a privileged starting point for excursions to natural beauty spots or other cities.

The city will soon be one thousand years old. Neuchâtel offers an old tradition of reception, high quality standards and reasonable prices. The centre of the city offers a large pedestrian precinct with small, convivial squares, bars and restaurants, an ideal place for the congress venue; hotels, museums and the lake are all less than a 10-minute walk apart.

In August, the weather is usually warm and sunny. The normalized average temperature is 18° C, average minimum and maximum temperatures respectively 14° C and 24° C, with less than 100 mm or 10 days rainfall. The lake temperature is ideal for swimming ([www.ne.ch](http://www.ne.ch), [www.neuchatel.ch](http://www.neuchatel.ch), [www.nenet.ch](http://www.nenet.ch))

Welcome to Neuchâtel!

**More information, please contact to: Bernard Clot  
MeteoSwiss, Les Invuaries, CH - 1530 Payerne  
Tel +41 26 662 62 59, Fax +41 26 662 62 12  
[bernard.clot@meteoswiss.ch](mailto:bernard.clot@meteoswiss.ch)**

## Address List

### PRESIDENT

Dr. Carmen Galán  
Dept. of Plant Biology  
University of Córdoba  
Campus de Rabanales  
Colonia de San José, nº 4  
14071-Córdoba, Spain  
Tel. 34 957 218719  
Fax 34 957 218598  
e-mail: bv1gasoc@uco.es

### VICE-PRESIDENT

Dr. Siegfried Jaeger  
ENT-Clinic, E8J  
University of Vienna  
Währinger Gürtel 18-20  
A-1090 Wien, Austria  
Tel 43 (1) 40 400 3370  
Fax 43 (1) 405 63 55  
e-mail: siegfried.jaeger@univie.ac.at

### SECRETARY GENERAL

Dr. Christine Rogers  
Environmental Science & Engineering  
Harvard School of Public Health  
Landmark Center, PO Box 15677, 401 Park Dr  
Boston, MA 02215, USA  
Tel 1 617 384 8814  
Fax 1 617 384 8859  
e-mail: crogers@hsph.harvard.edu

### TREASURER

Dr. Janet Marie Macher  
Cal. Dept. Health Services  
EHLB, Indoor Air Quality Section  
2151 Berkeley Way, Rm 334  
Berkeley, CA 94704-1011, USA  
Tel 1 510 540 3130  
Fax 1 510 540 3130  
e-mail: jmacher@dhs.ca.gov

### NEWSLETTER EDITOR

Dr. Victoria Jato  
University of Vigo  
Dpt. Plant Biology  
Fac. Sciences  
E-32004 Ourense, Spain  
Tel 34 988 387054  
Fax 34 988 387001  
e-mail: vjato@uvigo.es

### MEMBERS

Dr. M. Thibaudon 18 Rue Boyer 69160 Tassin La demi-Lune France Tel 33(0)474706679 Fax 33(0)474706682 E-mails: michel.thibaudon@wanadoo.fr alastair.mccartney@bbsrc.ac.uk	Dr. A. McCartney IACR-Rothamsted Harpenden Herts AL52JQ UK England Politechnical building Tel 441582763133 2246 Fax 441582760981
--	---

### EX OFFICIO

Dr. Bernard Clot  
MétéoSuisse  
Les Invaudes, Case Postale 316  
CH-1530 Payerne, Switzerland  
Tel 41 26 662 62 59  
Fax 41 26 662 62 12  
e-mail: benard.clot@meteoswiss.ch

### PAST-PRESIDENT

Dr. Paul Comtois  
Dept. of Geography  
Univ. Montreal, CP 6128  
Montreal, QC H3C 3J7, Canada  
Tel 1 514 343 8029  
Fax 1 514 343 8004  
e-mail: paul.comtois@umontreal.ca

### PRINTED, FORMATED and DISTRIBUTED

Dr. F. Javier Rodríguez-Rajo  
Dr. Victoria Jato  
University of Vigo  
Dpt. Plant Biology  
Fac. Sciences  
E-32004 Ourense, Spain  
Tel 34 988 387048  
Fax 34 988 387001  
e-mail: javirajo@uvigo.es

# Third European Symposium on Aerobiology

## 2003 August 30th to September 4th

### Worcester UK

**I**t will be held at the National Pollen Research Unit, University College and organized by Dr. Jean Emberlin. Provisional programmed sessions includes traditional and new topics as Agriculture and Aerobiology, Methodology and Training, Aerobiological particles other than pollen and fungal spores, Aerobiology and Pollution, Bioterrorism, Biological warfare and Forensics, Allergies and Animal Health, Climate change and Aerobiology, Indoor Aerobiology, New Techniques in Aerobiology, Forecasting and Modelling, Biodeterioration. Moreover key notes, sessions to discuss important aerobiological aspects, Ragweed Sub-symposium, pollen and spore identification workshop and poster sessions will be included.

**Additional information about the Symposium on registration, accommodation, Social Programme, etc. can be found on the website:**

<http://www.pollenuk.co.uk>

**Late registrations are possible up to the date of the Symposium.**

## Aerobiologia

*International Journal of Aerobiology including the online journal 'Physical Aerobiology'*

**Editor-in-Chief:** Paolo Mandrioli

Institute of Atmospheric and Oceanic Sciences (ISAO), CNR, Bologna, Italy

**Assistant Editor:** Anne Collins

Institute of Atmospheric and Oceanic Sciences (ISAO), CNR, Bologna, Italy

**A**erobiologia is an international medium for the publication of original, full-length research papers and review articles in the interdisciplinary fields of aerobiology and interaction of human, plant and animal systems on the biosphere. Subjects covered include: bioaerosols, transport mechanisms, biometeorology, climatology, air/sea interaction, land-surface/atmosphere interaction, biological pollution, biological input to global change, microbiology, aeromycology, aeropalynology, arthropod dispersal and environmental policy.

Emphasis is given to subjects linked to aerobiology such as: respiratory allergology, plant pathology, pest management, biological weathering and biodeterioration, indoor air quality, air-conditioning technology, industrial aerobiology and cultural heritage. The journal is of interest to aerobiologists and related scientists and professionals working in fields such as medicine, public health, industrial and environmental hygiene, biological sciences, agriculture, atmospheric physics, botany, environmental science and cultural heritage.

 **kluwer**  
the language of science

**Special rate**

### Subscription Information

2003, Volume 19 (4 issues), ISSN 0393-5965

Subscription rate: EUR 332.00 / USD 332.00

Individuals may subscribe at the reduced rate of: EUR 136.00 / USD 150.00

Subscription Rate refers to either the Paper version or the Online version. To receive the Combined Paper & Online Version please add 20%. The private rate, if applicable, is available for the paper version only.

**for International Association for Aerobiology:**

**EUR 66.00/USD 70.00**

**Manuscript submission:** For the purpose of reviewing, articles for publication should be submitted as hard-copy printout (4-fold) and on diskette to:

Editorial Office Aerobiologia  
c/o ISAO-CNR  
Via Gobetti 101  
I-40129 Bologna  
Italy

Visit our website at: [www.wkap.nl](http://www.wkap.nl)

for up-to-date information on submitting, subscribing & your FREE (Online) sample copy



