



IAS

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International Allelopathy Society

Newsletter

President's Message



Plants compete with other plants not only for space, light, water and nutrients, but also defend themselves against microorganisms, insects, and herbivores. It will not be surprising that plants use more than thorns, hairy surfaces, and tough skins to discourage predators from taking a bite, rather they wield an arsenal of chemicals (secondary metabolites) to deter enemies, fend off pathogens, make nutrients more available and protect against other physical hazards of environments. These secondary metabolites, beneficial or deterrent to the growth of receptor organisms, could be regarded as an evolutionary expression of a silent communication of plant to its neighbors. Allelopathy is an

important aspect of these quiet communications.

Although the human recognition of allelopathy is as old as civilization yet it is regarded as a relatively new discipline of science. Hans Molisch coined the term "allelopathy" in 1937 in his book "Allelopathie". Japanese Professors who directly learned from him recall him as a strict and honest scientist.

During the past two decades this subject has flourished into an effective discipline of science, and has become more active in the past few years, through multidisciplinary efforts and constitutes an exciting field of study, because of the advances in chemistry and biology. Technical advances in chemistry enabled scientists to separate complex mixtures into individual components and chemically characterize components. Advances in biology have unveiled how these chemicals regulate the behavior of organisms. Molecular biology provided tools for studying signal transduction mechanisms, which changes chemical signal into an internal response. It is evident that allelopathic interactions between plants play a pivotal role in natural as well as manipulated ecosystem. Scientists working in various disciplines under the flag of allelopathy have broadened our knowledge to solve many environmental problems. The Novel weapon hypothesis might explain the invasive nature of alien plants. Scientists working on allelopathy will develop safe, environmentally friendly and more productive farming methods in agriculture

We are delighted to invite you to participate in our 5th International Congress on Allelopathy to be held in Saratoga Springs, near New York, USA from September 21 to

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25, 2008. Every three years we gather to share the most recent scientific and technical information about allelopathy on a global basis, and to have a unique opportunity to personally interact with scientists from all around the world. Through the concerted efforts of our colleagues in the US, a comprehensive scientific congress program that should serve as a platform for information dissemination, ample discussion and international cooperation have been prepared.

Allelopathy is an attractive research field, still developing, but has already shared tremendous findings in the scientific field. It is our goal to attract further the attention of other scientists, farmers and consumers and to make them aware of the importance of this research for safer food production and sustainable existence of human in the world. For the future success of allelopathy, we must be honest to the phenomena, present honest results, and plan for more international cooperation. I look forward to your participation in this developing science.

Yoshiharu Fujii

President

November 27, 2007

5th World Congress on Allelopathy

***“Growing Awareness of the Role of Allelopathy in
Ecological, Agricultural, and Environmental Processes”***

September 21 - 25, 2008, The Saratoga Hotel and Conference Center

Saratoga Springs, New York, USA

www.iascongress5.org

On behalf of the organizing committee, we extend a sincere invitation to all who would like to attend the 5th World Congress on Allelopathy in Saratoga Springs, New York. The venue is one of natural beauty and numerous recreational opportunities exist in this area for those who would like to arrive early or stay late. The scientific program will be of high quality. There should be ample time to network with colleagues. We welcome all scientists with an interest in allelopathy.

Host City and Venue

Saratoga Springs is a small but very pretty and culturally diverse city located in upstate New York, near Albany New York, bordering on the beautiful Adirondack Mountains and the large Adirondack State Preserve. It is home to Skidmore College, the NY City Ballet in summer months, many spas and medicinal springs. It is most famous for its thoroughbred

horse racing in August of each year. The autumn in Saratoga Springs is warm and sunny, and less crowded than the busy summer season. The Saratoga Hotel is a newly remodeled, state-of-the art conference facility, with restaurants, large hotel rooms, exercise facilities, and high speed internet access, located conveniently on the main street in downtown Saratoga. We strongly recommend all participants stay at this hotel and conference facility during the IAS congress. For more information on the hotel and town of Saratoga Springs, please see www.thesaratogahotel.com. Participants visiting from international locations are encouraged to arrive early and enjoy the scenic surroundings. Discounted room rates will be available both before and after the IAS Congress to meeting participants.

Meals and Refreshments

Included with registration are the following: Beverages and light snacks will be served at the opening reception. Lunch will be served on the three full days of meeting. Tea, coffee and soft drinks will be served at breaks. A BBQ dinner will be served along with the excursion. A banquet will be provided the last night of the congress.

Travel to Saratoga Springs

Saratoga Springs is easily accessible by direct flight to Albany NY from a number of major airports within the U.S. and Canada (Atlanta, Charlotte, Chicago, Cincinnati, Cleveland, Detroit, Las Vegas, Minneapolis, Newark, New York (JFK), Orlando, Philadelphia, Toronto, Montreal and Washington (Dulles)). Saratoga Springs and Albany NY are also accessible directly by train from Boston, Newark, Montreal, New York or Philadelphia. The hotel has the capacity to pick up guests in

Albany and deliver them to the hotel, a distance of about 30 kilometers. The train station is located within 0.75 km of the Hotel Saratoga. Both train stations in Albany NY and Saratoga Springs are brand new. Trains arrive hourly in Albany from surrounding areas and several times per day in Saratoga Springs. We will make arrangements to pick up most participants at the airport in Albany upon arrival.

Important Dates and Deadlines

Abstract submission and Registration Opens
1 January, 2008

Deadline for Abstract Submission
1 April, 2008

Deadline for Early Bird Registration
20 June, 2008

Deadline for Standard - Registration
1 September, 2008

CONGRESS DATES:

Congress: 21-2 September, 2008
Registration & Reception: 21 September, 2008
Congress Excursion: 23 September, 2008
Banquet: 24 September, 2008
Closing ceremony and IAS Business meeting
25 September, 2008

SOCIAL FUNCTIONS:

September 20, 7 pm – Opening Reception
September 22, 6 pm – Dinner on Lake George
September 23, 6:30 pm - Banquet

Letters of Invitation

The Congress Organizing Committee will be pleased to send a letter of invitation to any individual who requests one. It should be understood that such an invitation is intended to help participants raise travel funds and/or obtain a visa, and is not a commitment on the part of the conference to provide any financial support. Requests for letters of invitation should be sent to Professor Prasanta Bhowmik, the conference secretary (pbhowmik@pssci.umass.edu).

Scientific Program Topics

Main Topics & Organizers

Allelopathic interactions including plant pathogens, endophytes, mycorrhizal associations, and insect impacts - Marina Della Greca and Nils-Ove Bertholdson

Allelochemicals: Fate in soil and water - Inge Fomsgaard and Tsutomu Ohno

Allelochemical identification and localization - Agnes Rimando and Francisco Macías

Allelopathy in forest ecosystems - Azim Mallik and Shibu Jose

Allelopathy in agricultural settings - Jim Pratley and David Gealy

Biosynthesis, mode of action, and detoxification of phytotoxins from plant - Frank Dayan and Margo Schulz

Invasion ecology and allelopathy 1 - Yoshiharu Fujii and Leslie Weston

Interactions in the rhizosphere - Chiahua Kong and Inez Fritz |

Allelopathy methodologies - Jeffrey Weidenhamer and Regina Belz

Invasion ecology and allelopathy 2 – Inderjit and Ray Callaway

Allelopathy in crop settings for weed suppression - Prasanta Bhowmik and Rensen Zeng

Allelopathy in aquatic environments allelopathy - Gary Ervin and Marina Della Greca

Genetics and biochemistry of allelopathy - Scott Baerson and Anne Osbourn

Audio Visual Arrangements

Once a paper has been invited or designated as an oral presentation, the presenter will be notified. MS PowerPoint is the only medium for oral presentations. Speakers are requested to email their session chair copies of their presentation. As back up, presenters must bring a flash USB stick containing their presentations.

Posters

Contributed posters will be displayed for the duration of the congress. One board 120 x 120 cm and an easel will be provided for each poster paper. There will be no exceptions to the rule of one board per paper.

Text, graphs and tables must be easily read from a distance of ca. 2 m. Titles and headings should be larger and readable from a greater distance. It will not be possible to provide electronic connections for computer connections, video equipment, or any other special equipment for posters. A photograph of the presenting author should appear on the poster to assist delegates in identifying them.

Posters should be set up for display on **Monday September 22 from 8:00 AM and removed Thursday 25 Sept. between 14:00 and 15:00.** Materials not removed during this period will be considered as abandoned and discarded.

The presenting author will be expected to be present at their poster at and for the designated time.

Abstract

Abstract submission will be open on January 1, 2008. Abstracts should be prepared according to the instructions below. To be considered for inclusion in the Congress program, your abstract must be received by March 1, 2008.

The abstract should not exceed 300 words for all presenters other than invited speakers. It can contain no figures or chemical structures. Your abstract will appear in a book of abstracts and will be available on the IAS website electronically. We cannot accept responsibility for errors or omissions in the published or on line abstract. Abstracts will be edited for clarity by Main Topic organizers.

Abstracts should be sent by Internet as Word files to two individuals:

Stephen Duke (sduke@olemiss.edu)

The Main Topic Organizer for the topic that your paper best fits (see p. 5).

If you do not have confirmation of receipt within 24 h from one of the people to whom you send your abstract, please send it again. Use Word software and Ariel font and answer the questions at the end of the abstract.

Some oral presentations will be chosen from volunteered papers. If an abstract is not followed by registration of the presenting author by June 30, 2008, it will be removed from the program.

Allelopathy in Disturbed Areas (11 pt, bold)

Erik Molisch (10 pt, bold)

***P. O. Box 1029, Dept. of Plant Medicine,
University of North Dakota, Fargo, ND
29690, USA (10 pt. bold, italics)***

Disturbed areas often (10 pt)....(300 word max).

Choices for Main topic: 1st _____

2nd _____

Preference: Poster _____

Oral presentation _____

Accommodations

The Congress hotel is the Saratoga Hotel and Conference Center (<http://www.thesaratogahotel.com/>). Although other hotels are nearby, we strongly recommend that you use this hotel for your convenience and to help the congress meet its required booking. Delegates should book their own rooms. **Instructions on booking at the group rate will appear soon in a revision of the brochure. Check www.iascongress5.org for updates.**

Congress Registration:

Registration of delegates and others will be handled by the University. Use URL below for online registration. Instructions on this website can be used to register by internet, by fax, or by post.

<https://www.aux.umass.edu/forms/conferenceservices/allelopathy/index.htm>

Conference Fees and Membership

Registration Type	By June 20th, 2008	After June 20th, 2008
Delegate: IAS Member	<input type="checkbox"/> \$460.00	<input type="checkbox"/> \$535.00
Delegate: Non-Member	<input type="checkbox"/> \$560.00	<input type="checkbox"/> \$635.00
Accompanying Person	<input type="checkbox"/> \$180.00	<input type="checkbox"/> \$230.00
Accompanying Person Excursion Fee	<input type="checkbox"/> \$110.00	<input type="checkbox"/> \$140.00
Full-time Student: IAS Member	<input type="checkbox"/> \$260.00	<input type="checkbox"/> \$310.00
Full-time Student: Non-Member	<input type="checkbox"/> \$360.00	<input type="checkbox"/> \$410.00

Accompanying Persons: Registration includes pickup from Albany airport and Sunday Reception, lunches, and the Banquet.

Students: An official letter from your institution must be provided verifying your status as a FULL TIME student, and it must be provided with your registration form.

Refunds/Cancellation Policy: A \$35 cancellation fee will apply to all cancellations. If the cancellation occurs before June 21, 2008 the total amount paid will be refunded (less the cancellation fee). Cancellations made after June 21, 2008 and prior to August 21 will be refunded at 50% (less the cancellation fee). No refunds will be made for cancellations after August 21, 2008.

AWARDS

Individuals or corporations may apply to endow the following awards, which recognize outstanding achievements relating to the field of allelopathy. The Executive Council shall appoint an Awards Committee to solicit nominees, select the award winners and determine the nature of the award. Normally these awards will be presented on a triennial basis. The President will normally present such awards.

Molisch Award: For outstanding academic achievement and/or service relating to the field of allelopathy.

Grodzinsky Award: For the best single publication or book relating to allelopathy.

Rice Award: For the best single paper or article presented by a student at a symposium sponsored by the IAS.

IAS members are encouraged to nominate deserving people. Nomination package should include a covering letter justifying the nomination, CV of the nominee, list of publications and three recommendation letters. Kindly forward nominations to the Secretary, IAS at following address:

Professor Inderjit

Email: inderjit@cemde.du.ac.in

IAS Executive Council



**Y. Fujii,
President**



**Steve Duke,
President Elect**



**Leslie Weston,
Vice President**



**Inderjit,
Secretary**



**PC Bhowmik,
Treasurer**

At Large Representative: Dr. Renata Bogatek, Dr. Hanwen Wu, Dr. Ibrahim S. Alsaadawi, Dr. Manuel J. Reigosa, Dr. Rensen Zeng, Dr. Diego Castellano
Past President: Prof. Azim Mallik

Past Conferences

The 3rd Chinese Allelopathy Conference and FAO-China Seminar on Rice Allelopathy: October 9-12, 2007, HaiKou, Hainan Island, China - The 3rd Chinese Allelopathy Conference organized by Chinese Allelopathy Society was held in HaiKou, Hainan Island, China, October 9-12, 2007. FAO-China Seminar on Rice Allelopathy sponsored by FAO Plant Protection Service also was held during conference. More than two hundred Chinese participants and eleven scientists from Canada, Denmark, India, Italy, Japan, Korea, Spain, USA and Vietnam attended the conference and seminar. The presidents (current, electing and past) of International Allelopathy Society (IAS), Drs. Yoshiharu Fujii, Stephen O. Duke and Professor Francisco A. Macías attended the conference and seminar.

Six invited speeches from Yoshiharu Fujii, Stephen O. Duke, Francisco A. Macías, Franck E. Dayan (USA), Robert E. Blackshaw (Canada) and Per N. Kudsk (Denmark), and thirty-nine presentations of Chinese participants were delivered in plenary session. Dr. Ricardo Labrada (FAO), Professors Kil-Ung Kim (Korea), Duong Van Chin (Vietnam), RM. Kathiresan (India) and three Chinese young scientists delivered their lectures in FAO-China Seminar on Rice Allelopathy. 234 papers or abstracts were accepted for the conference proceedings. These presentations and papers showed intensive topics on allelopathy, including allelopathy for weed management, invasive alien plants and allelopathy, chemical interactions between crops and weeds, allelopathy in cropping systems and forestry, rice allelopathy, allelopathy in aquatic systems and allelochemicals involved in rhizosphere interactions. The conference and seminar will catalyze more support from Chinese government and other funding agencies to focus on allelopathy, and stimulate interdisciplinary scientists to join this exciting research field.

Biology, Ecology and Management of World's Worst Plant Invasive Species: 10 – 14 December, 2006; Centre for Environmental Management of Degraded Ecosystems (CEMDE), University of Delhi, Delhi 110007, India - An International Symposium, "Biology, Ecology and Management of World's Worst Plant Invasive Species" was organized by the Centre for Environmental Management of Degraded Ecosystems (CEMDE) at the University of Delhi from 10 to 14 December 2006. Invaders are short- or long-distance colonizers with potential for range expansion, and have impact on the new environment. There has been little progress in terms of making ecologically relevant generalizations to predict invasion and to understand its mechanism. There are two important questions in biological invasion. First, whether invaders have an impact on native community and if yes, what is the underlying mechanism? Second, how better ecological and socio-economic research can help in designing integrated management strategies? Invasive plants have an impact on global biodiversity and ecosystem function, and their management is a complex and formidable task. The objectives of the symposium were to discuss the state-of-art knowledge on different facets of the world's worst weeds, and evolve an effective and efficient management systems for the weed infested ecosystems, and expose the stakeholders to the latest strategies on the eradication and control of invasive weeds in managed and natural ecosystems. A large number of internationally renowned experts of invasion ecology and chemical ecology attended the

symposium. Some of the invited speakers attended the symposium were: Ian T. Baldwin (Germany), Jessica Gurevitch (USA), Steve Duke (USA), Leslie Weston (USA), Dave Mortensen (USA), R. Charudattan (USA), Steve Radosevich (USA), Sean McMahon (USA), Bob Blackshaw (Canada), Neil Harker (Canada), Azim Mallik (Canada), H Mueller-Schaerer (Switzerland), C.H. Kong (China), Yu-Long Feng (China), Hanwen Ni (China), Silong Wang (China), Zheng Yongquan (China), R. Labrada (Italy), A. Uludag (Turkey), Ayse Yazlik (Turkey) and Suzanne Mekking (USA; senior editor of Biological Sciences, Springer). Some selected papers are being considered for publication in the special issue of *Biological Invasions* (impact factor = 2.531).

Next IAS Meeting

If you planning to host next IAS meeting in 2011, please prepare a two page proposal and submit to the **Secretary**. All proposals will be evaluated by IAS Executive committee, and a proponent of next meeting will be requested to give a 5 min presentation to the Executive committee



Obituary

Erast A. Golovko (1937-2005) - On December, 13th, 2005, sad event occurred for the scientists associated in the field of microbiology and allelopathy (biochemical interaction, which covers plants, microorganisms and other living components of ecosystems). After severe long disease professor, doctor of biological sciences (\approx Dr.Sci.Biol.), Head of the Department of Allelopathy in National Botanical Garden of National Academy of Sciences, well known in and outside of the Ukraine scientist **Erast A.GOLOVKO** has died.

Professor E.A.Golovko was disciple and follower of one of the founders of modern allelopathy – academician Andrey M. Grodzinski (1926-1988). He was born on May, 9th, 1937, in the town Bila Tserkva ('White Church' in English translation) situated in 80 km from Kiev, capital of present Ukraine. In 1961 he graduated from State Agrarian University in Bila Tserkva as soil microbiologist, during 1963 – 1973 he studied as postgraduate and worked in the Polar-Alpine Botanical Garden of the Kola branch of the Russian Academy of Sciences. In 1969 at St. Petersburg Agrarian University he defended his Ph.D. thesis (candidate scientific dissertation). Since 1974 he worked at the National Botanical Garden of National Academy of Sciences of Ukraine, and held appointments from junior scientists at the Department of Plant Physiology to the head of the Department of allelopathy since 1983. In 1985 at the Institute of Plant Physiology and Genetics of National Academy of Sciences of Ukraine he presented the thesis for a Doctor's degree and in 1995 was obtained the academic status of professor in plant physiology.

E.A.Golovko's scientific interests covered a lot of scientific fields, first of all in allelopathy, viz. experimental base of allelopathy, the function of phenolic compounds in allelopathy of higher plants and microorganisms, the search for plants-donors of physiologically active materials as alternative means of plant protection and other highly effective substances of natural origin, the mechanisms of interaction between higher plants and microorganisms in natural ecosystems, including botanical and dendroflora gardens, and also steppe reserves.

E.A.Golovko for the first time has generalized present concepts about the role of microorganisms in allelopathy of higher plants, in functioning of both natural and agro-ecosystem and in soil sickness. For the first time the long-term data about allelopathic activity and tolerance of majority of Ukrainian steppe plant species were analyzed. Under his management the taxonomic structure analysis of microbial complexes of many steppe species rhizosphere was carried out, and this made possible to create the gene bank of biologically active microorganism species. He substantiated the point of view about composition and balance of amino acids and phenolics as the basis of allelopathic activity of many higher plants exometabolites. Erast A. Golovko developed the priority directions of scientific researches in national program for conservation and fertility renewal of Ukrainian chernozem soils.

E.A.Golovko's scientific publications include 197 titles, comprising 7 monographs (6 in the co-authorship) and scientific manual for students. Most known are "Microorganisms in allelopathy of higher plants" (1984), and also "Allelopathic soil sickness" (1979), "Experimental allelopathy" (1987), "Interaction of volatile excretions in the closed ecosystems" (1992), published in the co-authorship with A.M.Grodzinski and co-workers of Department of Allelopathy in Russian language. The scientist won M.G.Kholodny Award

of National Academy of Sciences of Ukraine for the series of publications in the field of allelopathy (1989).

Professor E.A.Golovko constantly dealt with recognition and strengthening the authority of allelopathy in Ukraine – in the level of Common Biology Division of Nat. Acad. Sci. of Ukraine and at the international level. E.A.Golovko participated as delegate from Ukraine in the creation of International Allelopathy Society in India (1994) among allelopathists from 19 countries, in the work the First (Spain, 1996) and the Third (Japan, 2002) International Congresses on allelopathy, and also in IX Pacific Congress in Taiwan (1998), and also many other scientific forums. E.A.Golovko headed the Ukrainian branch of International Allelopathy Society and he was the member of the American Soil Science Society. He took part in the commission of International Allelopathy Society for Grodzinski Award for the best scientific monograph or the series of allelopathic publications.

E.A.Golovko's scientific work had been harmonically combined with pedagogical activity. Under his management 12 candidate and 3 doctoral dissertations were prepared and defended. He was the member of specialized Academic council at the Institute of Plant Physiology and Genetics of National Academy of Sciences of Ukraine and at the Institute of Agro-Ecology of National Academy of Agrarian Sciences, he worked in editorial board of journal "Physiology and Biochemistry of Cultivated Plants", and also he was the Scientific secretary of section "Biology" at the governmental Committee for the State Awards of Ukraine in the branch of science and engineering.

Bright memory to the outstanding scientist and to excellent man who has finished his life path. On behalf of Department of Allelopathy and National Botanical Garden of Nat. Acad. Sci. of Ukraine

Senior researcher,
Candidate of Biological Sciences

Vladimir P. GRAKHOV

v.grakhov@gmail.com

Research worker,
Candidate of Biological Sciences

Natalija A. PAVLYUCHENKO

n_pavluch@mail.ru

Membership Forms

An invitation

The International Allelopathy Society invites you to join in membership all around the world with scientists of diverse disciplines with a common point of interest: the study and comprehension of allelopathic phenomena. We hope this application will provide you the opportunity to take advantage of the many benefits IAS shall offer to its members.

Please type or print clearly.

1. Name: _____

Email address (required for ALL members): _____

Mailing address:

Institution: _____

Street: _____

City _____ Postal code _____

State/Province _____ Country _____

Tel: _____ FAX: _____

E-mail address: _____

Interests (keywords) _____

2. Academic Training

Name of College or University: _____

City, State and Country: _____

Title and Date of Degree(s): _____

(B.S., M.S., Ph.D.) _____

3. Professional Experience

Job Title: _____

Employer: _____

Employer City, State, Country: _____

Date of employment: _____

Nature of Business: Manufacturer / Academic / Other (PLEASE SPECIFY)

Work Functions _____

Field of Interest _____

Students: List courses taken in areas of science related to allelopathy, expected degree and date.

4. Nomination

Nomination by two IAS members is required by IAS Bylaws. If this presents difficulty, please contact the IAS Treasurer for assistance. Student affiliation does not constitute membership.

We recommend (NAME OF APPLICANT) for membership in the International Allelopathy Society

/IAS Member: _____
(SIGNATURE) (PRINTED NAME)

/IAS Member: _____
(SIGNATURE) (PRINTED NAME)

5. Payment: (Membership is paid on a triennial basis. Dues paid now will keep your membership current until the next meeting.)

Circle amount which applies:

Membership Type	Fee
IAS Membership Fee: Members (3-yr)	<input type="checkbox"/> \$75.00
IAS Membership Fee: Students (3-yr)	<input type="checkbox"/> \$30.00
IAS Life Membership	<input type="checkbox"/> \$500.00

Checks or money orders should be made payable to the International Allelopathy Society, and should be drawn upon a US Bank, and sent to **Dr. Prasanta Bhowmik**. Email for Dr Bhowmik is: pbhowmik@pssci.umass.edu



Newsletter Editor's column

Kindly send material for the next newsletter to Professor Inderjit, Secretary of the International Society of Allelopathy.

**Professor Inderjit
Centre for Environmental Management of Degraded
Ecosystems (CEMDE), University of Delhi, Delhi 110007, India
Email: inderjit@cemde.du.ac.in**