

## ISCE Newsletter, Volume 27, Number 3

November 30, 2010

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#### President's Message



Perception of and appropriate response to environmental signals is essential for all organisms, including ourselves, ISCE members. The ISCE is dedicated to chemical signals and the fascinating, "silent" chemical language used by organisms for intra- and interspecific communication.

The life of our society is fueled by the many diverse secrets that we try to disclose when analyzing chemical information transfer among organisms: How are the words of the chemical language spelled, i.e. what are their chemical structures? What is the syntax of a communicative channel, i.e. which words are used and in which sequence and doses? How are the words formed, i.e. what are the biosynthetic pathways and which genes need to be expressed to form the words? How are the words perceived and the sentences integrated, i.e. what are the receptors, and how do the chemicals reach the receptor and activate intraorganismic signalling? Why do the organisms studied convey information with a specific chemical word or set of words, i.e. what is the benefit of using these words? These are just some of the scientific aspects we members of the ISCE are addressing. It is an honor and a pleasure to be the President of such a spirited society. As much as chemical information transfer among organisms is our scientific focus, lively communication among chemical ecologists worldwide – from East to West, from North to South - is a matter close to our heart. The need for intense cooperation as well as intercontinental meetings of chemical and molecular ecologists (such as with APACE and ALAEQ) is an important issue that was discussed extensively at the most recent annual ISCE meeting. I definitely want to promote this issue and hope to bring it closer to fruition. Another important issue that I feel our society needs to address is to encourage students and young scientists to join us and become members. Energetic, great personalities founded the ISCE in the early 1980's, and the society was strengthened during the last decades by both excellent scientific contributions and numerous social activities. Among such are: hosting and attending meetings, over taking society duties, providing recognition medals for service and accomplishments, creating entertainment and amusement, and even

washing the President's yellow tie. The "parents" of the society can look back on the significant accomplishments achieved thus far. Like any family, we need the young people, as they infuse the society with new ideas and innovation which enrich old traditions. Thus continuing and intensifying our efforts to integrate the young, bright students and scientists into our society is crucial.

Finally, I would like to take this opportunity to express my warmest thanks to Anne-Genevieve Bagneres who hosted the 26th annual ISCE meeting this summer in Tours, France. She allowed us not only to experience a highly interesting scientific meeting, but also to enjoy the odor and taste of delicious French wine and food that included royal atmosphere at the final banquet. Wonderful! Thank you, Anne-Gen! I also thank Erika Plettner, who is currently preparing and organizing our next annual meeting in 2011 in Vancouver, Canada, and who already has compiled an excellent programme. The hosting of a meeting is an enormous task and I am grateful for her diligent efforts. I also express many thanks to my immediate predecessors Jeff Aldrich (ISCE President 2009-2010) and Willi Boland (ISCE President 2008-2009) for their support and commitments.

Finally, last but not least, I want to encourage all of you to "get involved!" in the society's affairs, to communicate and discuss ISCE issues not only during a meeting, but also in between. Please communicate with each other and with me! I look forward to your ideas and suggestions.

Monika Hilker  
President, ISCE

### Secretary/Editors Message



Next year UNESCO has appointed 2011 to be the International Year of Chemistry. As chemical ecologists we should be able to give many examples of positive, good chemistry. There is a general impression that chemistry is dangerous and thus no alternative for young people. As we need highly qualified chemists also in the future, we have to find new ways to increase the number of students that like chemistry. With the recent catastrophe in Hungary in mind we need to announce that chemistry to the main part should be associated with something very positive.

Therefore if we can list examples where chemistry has played a significant positive role, I would very much appreciate and look forward to ideas from you that we can add to the webpage for next year 2011, so students can find examples of good chemistry. During teaching we could recommend undergraduate students to go to the home page of ISCE to find these examples.

**Reminder:** To all members who have changed their mail address in the last year, please send me the new address. [akbk@kth.se](mailto:akbk@kth.se)

## ISCE Meeting 2010



Report by Anne-Gen Bagnères, organizer of the congress

This congress seems to have been a historic step in the life of the society, not only because of the largest attendance in 26 years (over 350 registrants from 42 countries, with 195 scientists and 131



students, plus accompanying persons) but also because of the overall quality of the science. "We could see our field maturing in the depth and range of its studies in a most impressive way," wrote Jerry Meinwald to me. His words echo my feelings. Christer Löfstedt said he returned home "refreshed, with many new ideas!" This is how one should feel coming back from a congress! I received so many thanks that it is difficult to cite them all but they all went directly to my heart.



I wish to thank all those who helped make this congress such a success (symposium organizers, moderators, speakers, organizing committee, etc). This success is due to their efforts.

Thanks also go to the sponsors, first of all the CNRS, our mainstay, but also the Region Centre, my Institute (IRBI), BASF, ChemTica, etc, (a full list of these generous organizations can be found on the web page <http://www.atout-org.com/isce2010/sponsors>) and also to Trécé Inc., Suterra LLC and Springer for funding the Student Travel Awards, Silver Medal Award and the Silverstein Simeone Award, respectively.

John Borden, who received the silver medal, was a wonderful example of how to be a great scientist, a great applied researcher and a wonderful mentor, and Frank Schroeder, who received the Silverstein Simeone Award, organized nicely a workshop entitled "Identification of chemical signals: comparative metabolomics via NMR and MS" before his great lecture on "Worm chemical biology".



We invited two special guests: Marc Lemaire addressed his conference on sustainable chemistry, a major challenge for our world, and Marie-Christine Grasse not only talked about perfume but also brought the world of fragrance into the amphitheatre.



All invited lectures by young and not so young chemoecologists were fantastic, and there were many ground-breaking talks on the very diverse topics chosen by the scientific committee - many thanks to them all. I hope the organizers of the next congresses will feel the same as I did during and after the congress, great joy and emotion because everybody looked so happy to be there, enjoying the fantastic scientific atmosphere and the

friendship of the members of the society - old and young! Our society is one of the most open and enjoyable scientific groups, as so many new members told me. It is also what I believe!



**The following students from developing countries were awarded 1000 Euros each**

Abdullah, Fauzia Dr., University of Malaya, Kuala Lumpur, Malaysia  
Banchio, Erika, PhD, Universidad Vicoso, Rio Cuarto, Argentina  
Castelo, Marcela, PhD, Buenos Aires, Argentina  
Chokratin, Pakawieng, Ms, ChalongkornUniv., Bangkok, Thailand  
de Lima Mendonça, Adriana, Dr., Maceio-alagoas Univ. Federalde Alagoas, Brazil  
Rodrigues Vieira, Cecilia, Ms, Brazilia, Brazil  
Peris, Amwayi Ms, ICIPE, Nairobi, Kenya  
Ranganathan, Yuvaraj, Mr. Bagalore, India  
Steenhuisen, Sandy-Lynn, KwaZulu-Natal, South-Africa

**Awarded by our society for best oral presentations** were Nick Bos, University of Copenhagen, Denmark, and Liz Bosak Pen State, USA; they received 200 EUR each.

**Awarded by our society for best poster presentations** were Wilfried Kaiser from CNRS-University of Tours, France, and Tobias Otte from Freie Universitaet Berlin, Germany. They received 200 EUR each. Rachele Adams ( Univ. Copenhagen, Denmark ) and Maki Arakawa (University of Agriculture and Technology, Tokyo, Japan) received the book "Insect Hydrocarbons" by Anne Genevieve Bagneres.

**The next ISCE annual meeting (July 24 – 28, 2011) is hosted by Erika Plettner: International Society of Chemical Ecology, 27th Annual Meeting Simon Fraser University, Burnaby, British Columbia, Canada;**

**A pamphlet can be down loaded [here](#)**

The topics of the symposia are very attractive:

1. Efficient synthesis and new methods for the identification of semiochemicals and natural products (B. Torto and J. Bergmann)
2. Chemical ecology and natural products of marine organisms (K. VanAlstyne, W. Fenical)
3. Multimodal communication (integration of olfaction, taste, vision, acoustics and mechanoreception) in arthropods (G. Gries, J. Millar)
4. Chemical ecology of microorganisms, including symbionts and pathogens of plants and animals; soil microorganisms (S. Schulz, N. Verhulst)
5. Social insects (Y. LeConte, R. Van der Meer)
6. Neurophysiology and brain development in the perception and/or effects of semiochemicals (B. Hansson, M. Ozaki)

7. Chemical ecology in forest ecosystems (C. Keeling, D. Huber, B. Aukema)
8. Genomics and chemical ecology (C. Keeling, D. Huber)
9. Plant natural products and chemical ecology (T. Hartmann, M. Heil)
10. Chemical Ecology: public lecture and activities / demonstrations for members of the public (S. Lavieri, E. Plettner)

**Important!** Please check whether you need a visa to come to Canada. This website has more information: <http://www.cic.gc.ca/english/visit/index.asp>

**The ISCE meeting 2012** will be located in the beautiful city Vilnius in Lithuania, and Prof. Vincas Buda will be our host.

### **ISCE Medal Award Winners 2011**

After the call for nominations in December 2009 and the elections in 2010 for the awardees in 2011, we herewith announce the names of the following awardees who will be honored at the next ISCE meeting in Vancouver, 2011. You will find further more detailed information about these awardees in our next newsletter.

Silver Medal 2011:

- Paul Feeny, Cornell University, USA

Silverstein Simeone Award:

We have two awardees in 2011:

- Ken Raffa, University of Wisconsin-Madison, USA
- Coby Schal, North Carolina State University, USA.

### **Call for Nominations**

#### **Call for Nominations for the Year 2012 ISCE Silver Medal and Silverstein-Simeone Awards**

The ISCE Silver Medal Award is intended to recognize career achievement by an outstanding scientist working in the field of chemical ecology. The Silverstein-Simeone Award, established in 1995, to honor Milt Silverstein and John Simeone, is made on the basis of recent or current work, by the individual, of an outstanding nature at the "cutting edge" of chemical ecology. The recipient must deliver a plenary lecture at the annual ISCE meeting and publish a paper on the same topic in the Journal of Chemical Ecology. The expenses of the recipient of the Silverstein-Simeone Award to attend the annual meeting are paid by the society through the generous sponsorship of Springer Publishers. Nominators should be ISCE members in good standing. Nominations will be reviewed by the President and Vice President for relevance to the appropriate award, before forwarding them to the full ISCE Executive Committee. Should a nomination for one award be considered more relevant for the other award, the President will contact the nominator(s) regarding reconsideration. Current ISCE officers or councilors are not eligible for the awards because of possible conflict of interest. Note that previous, unsuccessful nominations must be re-nominated to be considered for the awards. It would be helpful to resubmit the nomination packets for these individuals.

The nomination process is the same for both awards and is as follows:

- A nomination letter explaining why the nominee should be recognized for the award, stressing either their current cutting-edge research (for the Silverstein-Simeone award) or their career achievements (for the Silver Medal award).
- Curriculum vitae, including a list of publications pertinent to the research on which the award is based (for the Silverstein-Simeone award), or a full list of publications (for the Silver Medal award). Supporting letters from other colleagues may be included.

Please submit all parts of the packet in electronic format (including supporting letters) along with one paper copy to:  
Prof. Dr. Monika Hilker, ISCE President,  
Freie Universitaet Berlin, Institute of Biology  
Haderslebener Str. 9, D-12163 Berlin, Germany

Tel. ++49 30 838 55913

<http://www2.biologie.fu-berlin.de/azoet/>

Email Monika Hilker [[Hilker@zedat.fu-berlin.de](mailto:Hilker@zedat.fu-berlin.de)]

Deadline for receipt of nominations: 31 January 2011

## **Call for Nominations for ISCE Vice-President, and Councilors for 2011**

Nominations for the positions of Vice-President and three new councilors are called. The position of Vice-President is prestigious in that he/she will assume the position of Society President in the year following the tenure as Vice-President.

ISCE councilors are elected for a term of three years. Councilors must commit to attending at least two ISCE executive meetings during this period. Their other principal responsibilities are participation in the selection of the Silver Medal and Silverstein-Simeone Award, and to provide general guidance and assistance to the Executive Committee. It is expected that all people nominated for the above positions have a strong record of participation in Society activities and meetings. It is highly desirable that the elections have competition for the positions, i.e., that there is more than one high quality candidate for Vice-President and at least 4 candidates for the councilor positions.

Please send names, contact addresses, phone and fax numbers, and e-mail addresses of candidates along with a short description of why you think the candidate(s) would be suitable for office, to:

Prof. Dr. Monika Hilker, ISCE President,  
Freie Universitaet Berlin, Institute of Biology  
Haderslebener Str. 9, D-12163 Berlin, Germany

Tel. ++49 30 838 55913

<http://www2.biologie.fu-berlin.de/azoet/>

Email Monika Hilker [[Hilker@zedat.fu-berlin.de](mailto:Hilker@zedat.fu-berlin.de)]

Deadline for receipt of nominations: 31 January 2011

## **Member news**

Hans Visser has initiated a new communication platform, below his message: please visit and join:

"Dear colleague,

A few days ago I started the Insect Chemical Ecology group on [www.linkedin.com](http://www.linkedin.com)

I invite you to become member through a LinkedIn profile, sign in on [www.linkedin.com](http://www.linkedin.com) and search groups for Insect Chemical Ecology.

General information on the Insect Chemical Ecology group:

Scientists are invited to share their interest in insect chemical ecology, including insect-insect and insect-plant relationships, tri- and multitrophic interactions, insect chemoreception and ethology, and related disciplines such as chemistry, ecology and physiology.

An open platform is offered for those active in insect chemical ecology in order to establish easy contacts and discussions. Please complete your profile on your present and past scientific interest and include a website for further information. The Insect Chemical Ecology group (ICE) wishes to complement the activities of the ISCE, ESITO, ECRO, ICWI and others. The ICE key words are informal and informative: an easy access network on insect chemical ecology.

Nowadays this is the easy way to share information!

Please consider to invite your colleagues and PhD students to become member of the Insect Chemical Ecology group on LinkedIn.

Kind regards,

Hans Visser

Selterskampweg 3,

6721AP Bennekom, The Netherlands

Phone +31 318 417145; Email [jhvisser@olfacts.nl](mailto:jhvisser@olfacts.nl) ; Website [www.olfacts.nl](http://www.olfacts.nl)

**In Memoriam Jan Tengö July 16, 1939 – June 18, 2010**



We are saddened to inform you that our scientific colleague and friend, Professor Jan Tengö, has passed away after a short time of illness. After academic studies at Uppsala University he completed his PhD-thesis in 1979 with investigations on "Chemical Signals and Odour-released Behaviour in *Andrena* Bees (Hymenoptera: Andrenidae)". A great part of this work was performed at the Uppsala University Ecological Research Station on the island of Öland under the leadership of its famous founder, Professor Bertil Kullenberg. Subsequently, Jan continued his studies along these lines and made major contributions on odour-released behaviour in solitary bees, wasps, and bumblebees as well as on pollinator attraction in orchids. In later times he himself became head of the Research Station. Jan generously received and inspired so many scientists and students from all over the world, who spent periods at the Station for their studies, especially concerning chemical ecology of insects. These impressive activities implied successful interdisciplinary collaborations between biologists and chemists to which he gave untiring support. But apart from encouraging scientists to step into the field of chemical ecology, Jan was also strongly engaged in external activities in the form of excursions, demonstrations and information for the public, especially in the project "The Gateway to the Alvar", Öland's unique landscape that UNESCO recognized as World Heritage. He also participated in teaching at the University of Kalmar.

Jan was a thoughtful, kindhearted, and generous person, an attitude that also characterized his research. Relentless towards himself in his personal commitment to science, he was highly observant and absolutely correct and meticulous in recordings of studies in the field and in the laboratory. And he was a sociable man with a great amount of contagious *joie de vivre!*

Sharing our sadness over Jan's death with his wonderful wife Lisa and his children Oskar, Maria, and Peer, we thank him for his personal dedication and all his activities for the benefit of Chemical Ecology. While we miss his personality and his special sense of humor, his scientific achievements will keep him among us.

The Ecological Research Station has now become a Foundation under the new name "Station Linné Society". The director is Prof. Dr. Fredrik Ronquist who takes care of the scientific scope and has to keep it running (more information at [www.stationlinne.se](http://www.stationlinne.se)). The Station needs financial support, and anyone cherishing fond memories on Jan and the "grand old days" is encouraged to make a donation.

The coordinates of the corresponding bank are:

Ölands Bank, SE 38621-Färjestaden, Sweden

Org. No. 802 441 6003

Bankgiro: 254-8246

IBAN: SE 81 8000 0803 0907 3052 9575

BIC: SWEDSESS

Wittko Francke, Gunnar Bergström, Anna-Karin Borg-Karlson, Manfred Ayasse

## Upcoming meetings

Dear colleagues,

We wish to bring to your attention that the 12th meeting on

**Chemical Signals in Vertebrates (CSiV XII)**, is scheduled to take place in **Berlin, Germany, 27th – 31st August 2011**. <http://tinyurl.com/CSiV2011>

Following the excellent tradition established by previous **CSiV** meetings, the aim of the forthcoming **CSiV XII**, which will be organised by the **Leibniz Institute for Zoo and Wildlife Research (IZW)**, is to provide a stimulating, focused forum for scientists to present their recent findings, discuss ideas and hear about new advances. We are happy to receive your suggested topics for sessions during the meeting.

As the venue for the **CSiV XII** meeting in Berlin in August 2011 will be determined by the number of likely participants, we would be grateful if you could let us know if you think you are likely to attend.

For all matters regarding the meeting please contact [Dehnhard@izw-berlin.de](mailto:Dehnhard@izw-berlin.de).

Hoping to hear from you,

The local organizing committee: Marion East & Martin Dehnhard

Dr. Martin Dehnhard

Research Group Reproduction Biology

Leibniz Institute for Zoo & Wildlife Research

Alfred-Kowalke-Str. 17

10315 Berlin, Germany

Tel.: +49-30-5168-615

[www.izw-berlin.de](http://www.izw-berlin.de)

## Positions Available

### **Spain: PhD Studentship, Insect olfactory neuroethology**

Department of Crop and Forest Sciences, University of Lleida, Lleida, Spain

The aim of the project is to characterize the neuroethological components of the olfactory response of the Oriental fruit moth, *Grapholita molesta*, to host plant volatiles and sex pheromones. The combination of plant volatiles with pheromone can improve pheromone efficiency in pest control. Behavioral responses to pheromone and plant stimuli in the wind tunnel and in the field will be studied together with physiological responses at the peripheral and central nervous system levels. Flight-track analysis, electrophysiology and neuroanatomy will be employed.

This is a collaborative project between the Entomology Group, Department of Crop and Forest Sciences, University of Lleida (Dr. César Gemenó), the Department of Psychology at the University Autónoma of Madrid (Dr. Carmen Fernández-Montraveta), and the Insect Physiology Group (PISC) at the INRA of Versailles (Dr. Sylvia Anton), providing an interdisciplinary and international research environment involving groups in chemical ecology, agricultural entomology, animal behavior and insect neurobiology.

Candidates should have a degree or MSc in an appropriate subject such as biology or entomology, and interests in chemical ecology, insect behavior and neurobiology.

The studentship is funded by the Spanish Department of Science and Innovation (MICINN). It provides a four-year stipend (around 1200 €/month) plus social security, starting approximately in August 2011. On-line application at the web page of the MICINN ([www.micinn.es](http://www.micinn.es)) should open in February 2011. Potential candidates should contact Dr. César Gemenó ([cesar.gemeno@pvcf.udl.cat](mailto:cesar.gemeno@pvcf.udl.cat)) for further information.

### **China: Master/PhD student, postdoc and permanent researcher positions available at the Shandong Academy of Agricultural Sciences in Jinan (People's Republic of China)**

Three full-time permanent staff position three postdoc and a dozen of Master/PhD positions are available at the laboratory of Functional Genomics and Proteomics of Chemical Ecology, Shandong Academy of Agricultural Sciences (Jinan, China) in the field of microbiology, plant transgenesis and insect control. Particular emphasis is given to insect/plant, plant/plant, plant/fungi molecular cross-talks and their variations under environmental changes. FGPCE is newly established laboratory in the new research center SAAS in Jinan (Shandong Province, East-Peninsula, North China Sea). Our study deals traditionally with evolution- hormonal and genetic control of differences in pheromone communication systems of moths-molecular basis of insect olfaction for pest control (solve odor/hormone binding protein structure to develop specific OBP/HBP suppressing agents) and start in the new area that is plant-plant/plant-fungi communication with perspectives in plant transgenesis (following identification of new plant/fungal genes). This orientation to plant-insect, within-plant and plant-to-fungi signaling involves cooperation with other partners in China and the broad world internationally. Unifying knowledge and expertise, we aim to new ways to

manipulate insect/plant/fungus interactions in order to solve scientific problems of international relevance. Our main goal is to solve the insect and microbe problems for more sustainable Agriculture and human health care. Our main wish is to help develop in-China as well as international academic exchanges through multicultural research. Candidates should hold a PhD diploma in Entomology, Molecular Biology, Protein Biochemistry, Plant Biology, Chemical Ecology, Microbiology, Neurosciences or Evolution. For Master/PhD students, molecular biology training and solid experience in protein expression are required. Candidates with excellent credentials in pheromone chemistry, phylogeny or gene evolution may be considered. Eligible candidates have *à priori* Chinese nationality. Internationals are encouraged to apply for PhD/postdoctoral positions.

Interested candidates should address an electronic application including cover letter, detailed CV, list of publications, conferences, distinctions, and three to five recommendation letters to:

*Ren cai* Prof. Dr. Jean-Francois "Jeff" Picimbon, Avh

*"High Level Oversea Scientist" and "Taishan Scholar Oversea Scientist"*

Functional Genomics and Proteomics of Chemical Ecology

Shandong Academy of Agricultural Sciences

11, Sang Yuan Road, Jinan, China

[@jfpicimbon@saas.ac.cn](mailto:jfpicimbon@saas.ac.cn)/[@gmail.com](mailto:jfpicimbon@gmail.com)

Contact information: 杰夫0086-531-83175350

**Sweden: KTH: Department of Chemistry, Ecological Chemistry group, 1 PhD student in Chemical Ecology  
Chemical signals in conifers in relation to the pine weevil orientation and feeding behavior**

Swedish forests are generally managed by clear cutting followed by planting of conifer seedlings. A constant problem is that the seedlings are frequently killed by adult pine weevils feeding on the stem bark. This damage causes large economic losses for Swedish forestry. In earlier investigations conifers resin constitute of a high chemical diversity, but when attacked, specific compounds with effect on the behavior of the pine weevil are produced. In a new project we will investigate the chemical interaction between the conifer hosts and the pine weevil (*Hylobius abietis*) and how chemical compounds released by the plants might influence the behavior and reduce the feeding behavior. Seedlings of different chemotypes, with different growing conditions and with different treatments and seedlings before and after pine weevil damage will be chemically investigated. The PhD student will develop methods for collection, separation and isolation of the plant compounds that have a potential effect on orientation and feeding patterns of the pine weevil and she/he will be responsible for our new multidimensional GC-MS for separation of volatile, e.g. chiral plant constituents. The PhD student will deliver chemically characterized fractions and isolated compounds for further behavioral evaluation and work closely together with another PhD student, who has focus on the pine weevil behavior.

**Qualifications:** Applicants should have Masters Degree (or equivalent) in chemistry. Knowledge in chemical ecology, natural product chemistry, pharmacognosy, or biochemistry are qualifying. Further information should be addressed to Dr. Anna-Karin Borg-Karlson, [akbk@kth.se](mailto:akbk@kth.se)

**Associate Senior University Lecturer in Biology**

Lund University is Scandinavia's largest institution for education and research in a large number of disciplines, such as engineering, natural sciences, law, social science, economics, medicine, theology and the arts. The University has over 40 000 students and approximately 6 000 employees located in Lund, Malmö and Helsingborg. We have a comprehensive global network and a growing co-operation within the Öresund University framework within Southern Sweden and Eastern Denmark.

The Department of Biology was founded on January 1st 2010 by a fusion of the Departments of Ecology, Cell- and Organism Biology (COB), Undergraduate Studies in Biology, and the Biological Museums. At the same time, the building of the new Biology Centrum has been completed at Campus North, and for the first time all biology at Lund University has been merged to a common place providing unique opportunities for ground-breaking research and innovative education within biology. The Department of Biology has ca 300 employees, out of which ca 80 are PhD candidates. Research are organized around research groups that are active in many areas of biology including animal ecology, plant ecology- and systematics, theoretical ecology, chemical ecology and ecotoxicology, microbial ecology, limnology and marine biology, genetics, microbiology, plant physiology, animal physiology and zoology. We offer several undergraduate and master's program in "Biology" and "Molecular Biology" toward both Swedish and international students. Further information about research groups and undergraduate studies are found at <http://www.lu.se/biologi>

**Basic facts regarding the position**

Description The appointment is initially limited to four years, but can be made permanent following an evaluation

procedure. The work tasks are primarily research and teaching on basic and graduate levels, with at least 70 % research. The proportion between teaching and research can change over time and other duties can be included. The successful candidate is expected to play a key role in building up active research within biology. This also involves applying for external funding and developing cooperation with other university units and other governmental organisations, involved in this type of research. The teaching comprises courses on basic and advanced levels within biology, as well as supervision of Bachelor, Master and PhD students. Qualifications To be eligible for an appointment as associate senior lecturer, a person must, according to Chapter 4, Sekt 8a of the Higher Education Ordinance (SFS 1993:100), have successfully completed a PhD degree or have corresponding scientific competence in a relevant subject area. A person who holds a foreign degree that is deemed equivalent to a doctorate shall be qualified for appointment as associate senior lecturer. Priority should be given to candidates that have a PhD or equivalent degree in biology or within a comparable subject area. The candidates should have completed their degree no more than five years before the last date for applications. Candidates who have completed their degree earlier than this should receive equal priority if special grounds exist, for example leave of absence because of sickness or parental leave. The main criteria for the position are scientific and pedagogic skills, with an emphasis on scientific skills. The scientific qualifications will mainly be evaluated based on the quality and productivity of documented, scientific publications at highest international level. Large emphasis will be put on how the candidate's background and competence will foster and complement existing research and educational activities at the new Department of Biology. Of relevance is to consider how the research and educational activities of the candidate can contribute to bring together different parts of biology and thereby generate novel interactions within the department. Relevant post-doctoral experience is a merit, as well as the ability to apply and obtain external funding. Large emphasis will be put on the ability of the applicants to collaborate with others, and to plan, develop and perform education. Documented experience in communicating biological research to the society is also a merit. The candidate will be required to teach in both Swedish and English. It is expected that any non-Swedish speaking appointee within a three-year period will master the Swedish language well enough for allowing teaching of students, communication with different administrative units, as well as the general public in Swedish. Regulations for evaluation of qualifications for teaching positions are given in chapter 4 sekt 15 Higher Education Ordinance (SFS 1998:1003), in Lund University Teacher Appointment Regulations, ([http://www3.lu.se/pers/Regler/aolu02\\_en.pdf](http://www3.lu.se/pers/Regler/aolu02_en.pdf)) and in the Strategic plan of Lund University ([http://www.lu.se/upload/LUPDF/Om\\_LU/Strategicplan\\_2007\\_2011.pdf](http://www.lu.se/upload/LUPDF/Om_LU/Strategicplan_2007_2011.pdf)). The University strive to achieve an even gender balance. Therefore, applications from women, as well as from men, are encouraged.

Well documented scientific competence or other skills important for the subject of the position or the tasks included. Commentary: The Faculty of Science will place great emphasis on the applicant having been appointed to docent (habilitation). Well documented pedagogical skills. Commentary: The Faculty of Science will place great emphasis on the applicant having shown interest for pedagogical development, for example by attending classes in university teaching, and an ability to teach in Swedish and English. Good standing as a scientist, nationally and internationally. Commentary: The Faculty will, with consideration to the character of the subject, place great emphasis on the ability to successfully apply for research grants from national and/or international funders. Ability to advise graduate students. Commentary: When judging the ability to advise students, the Faculty will also place emphasis on the ability to advise master's theses. Ability to develop, lead and carry out education and research. Good academic leadership abilities and other personal abilities of importance for the position. Ability to interact with society and inform on research and development. An application for promotion to a permanent position as senior lecturer is to be submitted to the relevant teacher's appointment board at the latest 8 months before the appointment as assistant senior lecturer ends. The application for promotion is to be judged by the teacher's appointment board after acquisition of the opinion of at least two experts on the subject. Required content of the application The Faculty Board has specified instructions for the application and its accompanying documents. These can be found at the Internet address: <http://www.naturvetenskap.lu.se/o.o.i.s/11729>(<http://www.naturvetenskap.lu.se/anstallning>)

Information can also be obtained upon request by e-mail or ordinary mail.

Reference no: 1865 Closing date for applications: December 13, 2010 Date of appointment: As soon as possible

Placement: Department of Biology Trades unions at Lund University: OFR, SACO and SEKO Information about the position: Head of the Department Christer Löfstedt: +46-46-222 9338, [christer.lofstedt@ekol.lu.se](mailto:christer.lofstedt@ekol.lu.se); Assistant Head of the Department and Director of Undergraduate Studies Carin Jarl-Sunesson: +46-46-222 0124, [carin.jarl-sunesson@cob.lu.se](mailto:carin.jarl-sunesson@cob.lu.se).

**Information about conditions of employment and the application process:** Faculty Personnel Manager Gunilla Thylander, +46 -46 222 4032, [gunilla.thylander@kanslin.lu.se](mailto:gunilla.thylander@kanslin.lu.se)  
By commission /Gunilla Thylander

## **North America:**

### ***PhD Studentship, University of Minnesota, USA***

Evolution and function of species-specific hormonal pheromones in fish, University of Minnesota, USA

The aim of the project is determine how mixtures of hormonal metabolites have come to function as species-specific sex pheromones in fishes. The project could take a biochemical, behavioral, and/or neuroethological slant. The goldfish, a leading model of pheromone function, is the model but an imaginative and comparative approach is encouraged. This would be the first study to address this question outside of the insects. Candidates should have a degree or MS in an appropriate subject such as biology, fisheries, ecology, and interests in chemical ecology, behavior and neurobiology.

The studentship provides a yearly stipend (around \$1,750 a month), tuition and health care benefits. Starting date is flexible.

Potential candidates should contact Dr. Peter Sorensen ([soren003@umn.edu](mailto:soren003@umn.edu)) for further information.

### ***Graduate Research Assistantship***

#### **Evolutionary Ecology of Plant-Herbivore Interactions**

University of Wisconsin, Madison

Aspen and associated browsing ungulates are foundation species in forests throughout much of North America. A Graduate Research Assistantship (M.S. - Ph.D. or Ph.D.) is available for work with the research groups of Rick Lindroth and Eric Kruger at the University of Wisconsin-Madison. Funded by a five-year NSF grant, this research addresses genetic and environmental factors that influence aspen defense (chemical resistance, tolerance, escape) against mammalian herbivores (e.g., deer, elk). Primary objectives of the work are to: 1) characterize aspen chemical defense traits, 2) assess costs/benefits of resistance, tolerance and escape, and 3) evaluate the selective impact of browsing on the genetic structure of defense traits in experimental populations. Applicants must be interested in investigating both the chemical and population genetics aspects of plant-herbivore interactions. Applicants should pursue admission to the graduate program in Zoology (Ecology), Forest and Wildlife Ecology, or Botany.

For more information about the Lindroth and Kruger research groups, visit:

<http://entomology.wisc.edu/~lindroth/>

<http://forest.wisc.edu/facstaff/kruger.html>

University and Town:

The University of Wisconsin-Madison is a premier institution for research in ecology and evolution, and has ranked among the top five research universities in the United States for each of the past 20 years. UW-Madison ranks first in research expenditures among public universities. Madison is the capital city of Wisconsin, and consistently ranks among the best cities in the U.S.A. for work, education, family and leisure activities.

Stipend/benefits: 50% Research Assistantships currently provide a stipend of \$ \$20,400 (12 mo.), tuition waiver, and excellent medical/dental health plans.

Position available beginning in summer or fall of 2011.

Qualifications:

Highly motivated individuals with superior academic credentials and strong communication skills are encouraged to apply. Well-developed interpersonal skills are essential. Candidates must be able to work independently as well as part of a collaborative research team.

Application:

Interested candidates are asked to e-mail Graduate Student Services Coordinator Sara Rodock ([rodock@wisc.edu](mailto:rodock@wisc.edu)) a single PDF file containing the following:

- Cover letter outlining research interests, academic and professional backgrounds
- Resume
- Copies of transcripts (unofficial copies acceptable)
- GRE scores (if not available, indicate when exam will be taken)
- Names and contact information for three references

Applications will be reviewed upon receipt, whereupon promising candidates will be requested to submit formal applications to a UW graduate program. Note that several programs have a Dec. 31 cutoff date.

For further information, contact:

Dr. Rick Lindroth

[lindroth@wisc.edu](mailto:lindroth@wisc.edu)

237 Russell Labs

1630 Linden Drive

University of Wisconsin

Madison, WI 53706 U.S.A.

## ***Postdoctoral Position***

### **Climate Change and Forest Insects**

University of Wisconsin - Madison

A postdoctoral Research Associate position will be available spring/summer 2011 to work with Drs. Rick Lindroth (Univ. WI), Ken Raffa (Univ. WI) and Peter Reich (Univ. MN) on a pioneering project investigating the consequences of climate warming for southern boreal forests. This project, funded by a 3-year USDA AFRI grant, will explore warming-induced shifts in tree phenology and chemistry, and consequences thereof for the performance of tree-feeding insects and tree response to defoliation. This research will be integrated with the larger, DOE-funded "B4WARMED" project (<http://forestecology.cfans.umn.edu/B4WARMED.html>).

Primary responsibilities of the Research Associate are to coordinate and conduct field and laboratory components of the research program, including insect bioassays, censuses of insect biodiversity and foliar damage, and plant chemical analyses.

Qualifications include demonstrated expertise in insect bioassays and plant chemical analyses. Strong interpersonal/teamwork, laboratory, statistical and writing skills are essential. Must be able to live for extended periods during the field season near the research sites in NE Minnesota.

Salary and benefits: \$36,000+, commensurate with experience. Excellent family medical/dental health plans available at minimal cost.

Duration of position: up to 3 years

Application: Applications will be accepted through Jan. 15, 2011, or until a suitable applicant is found. Send a single pdf document, including c.v., names/addresses of three references, representative reprints, and a letter specifically detailing your fit to the position to:

Dr. Rick Lindroth

[lindroth@wisc.edu](mailto:lindroth@wisc.edu)

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