PhD position in chemical ecology within nGICE Alnarp

Ref SLU ua 2020.2.5.1-1380

Institutionen för växtskyddsbiologi

The Swedish University of Agricultural Sciences (SLU), Department of Plant Protection Biology, has an open position for a PhD student in chemical ecology within nGICE. The PhD student will assess how climate impact on the vector capacity of mosquitoes.

The Max Planck Centre, next Generation Insect Chemical Ecology (nGICE) is a high-level cooperation between SLU, Lund University and the Max Planck Society. The nGICE Centre focuses on a better understanding of the consequences of global climate change on insect ecosystem services, outbreaks of invasive insect species and the spread of disease vectors in Europe through the lens of insect chemical communication systems.

The Disease Vector group at the Department of Plant Protection Biology conducts and promotes basic research on the chemical ecology of disease vectors in accordance with societal needs, nationally and internationally, and apply this know-how to develop novel surveillance and control tools to be used within the integrated vector management framework. Our multi-disciplinary approach, to study how odour-mediated behaviours of disease vectors are modulated by external chemosensory cues and internal physiological states, is directed towards the identification of targets for reducing host-vector interactions.

Climate impact on vector capacity

Description:

With rising temperatures, increasing pollution and extreme water conditions, the Anthropocene is seeing range expansions, contractions and outright migration of a wide variety of species, resulting in new inter- and intra-specific contacts, with the potential to create super-vectors of disease. Such a range expansion of two Culex pipiens biotypes has resulted in hybrid offspring that are seriously effective bridge vectors of West Nile virus. While each parent is either strongly ornithophilic or anthropophilic, the hybrid offspring are both, making them superb bridge vectors. Here, we will analyse the mechanisms underlying the change in host preference, using both classical and reverse chemical ecology approaches. While behavioural analyses will be important for determining parental and hybrid phenotypes, the focus of the project will be to identify and functionally characterise the chemoreceptors involved in host preference variation. At least six months of the position will be spent in Jena, Germany.

Qualifications:
The successful candidate will hold a MSc in a biology-related field. Experience with behavioural analysis of insects is a requirement. In addition, experience with transcriptomic and functional genomic analyses are significant assets. S/he should be fluent in spoken and written English, and have excellent communication skills. The candidate should enjoy working in a group environment, as well as demonstrate a solid ability to work independently to advance our research.

Place of work:

Alnarp, Sweden

Forms for funding or employment:

Employment (4 years) fully funded

Starting date:

1 September 2020

Application:

We welcome your application no later than 2020-05-15, use the button below.

Specific documents attached: Applications must contain (1) PhD application form, (2) CV, (3) a description of research experience, (4) a statement of scientific interests, as well as (5) contact information of two references.

A person has basic eligibility for third cycle education if he or she has taken a second cycle qualification or has completed course requirements of at least 240 higher education credits, including at least 60 higher education credits at second cycle education. Upper secondary school grades equivalent to English B/English 6 are a basic requirement.

Selection among applicants meeting the requirements is made with reference to written application including curriculum vitae, copies of degrees and transcripts of academic records, one copy of the dissertation for masters or undergraduate degree, a list of at least two references familiar with the applicant’s qualifications, certified knowledge of the English language and an interview.

Please observe that applicant/s chosen to participate in an interview shall hand in certified true copies of certificates, diplomas and transcripts from previous studies at an internationally recognized higher education institution (university or university college) and transcripts in connection to the interview. If the applicant is a foreign citizen we require a certified copy of the page in your passport with your personal data and photography.

Read about the PhD education at SLU at www.slu.se/en/education/postgraduate-studies/

Academic union representatives:


Sveriges lantbruksuniversitet (SLU) utvecklar kunskapen om de biologiska naturresurserna, och hur vi kan förvalta och nytta dem på ett hållbart sätt. Detta sker genom utbildning, forskning och miljöanalys, i nära samverkan med näring och samhälle. SLU är ett internationellt och forskningsintensivt universitet, men erbjuder också unika utbildningar som agronom, veterinär, jägmästare, miljöekonom och landskapsarkitekt.

SLU har drygt 3000 medarbetare, 5000 studenter och forskarstuderande och en omsättning på över tre miljarder kronor. Universitetet satsar på attraktiva miljöer på sina campusområden i Alnarp, Umeå och Uppsala.
SLU eftersträvar mångfald och jämn könsfördelning.

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