

## German National Academy of Sciences Leopoldina

Founded in 1652, the Leopoldina brings together some 1,500 outstanding scientists from about 30 countries. It is dedicated to the advancement of science for the benefit of humankind and to shaping a better future. In its role as the German National Academy of Sciences, the Leopoldina represents the German scientific community in international committees. It offers unbiased scientific opinions on political and societal questions, publishing independent studies of national and international significance. The Leopoldina promotes scientific and public debate, supports young scientists, confers awards for scientific achievements, conducts research projects, and campaigns for the human rights of persecuted scientists.

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**Leopoldina**  
Nationale Akademie  
der Wissenschaften

The Lecture is open to the public and free of charge.

### Further information and registration:

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## Can we understand an insect society, and why should we care?

Leopoldina-INSA Lecture

by INSA-President Raghavendra Gadagkar

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Monday, 5 December 2016 | 5:00 – 8:00 p.m.

Nationale Akademie der Wissenschaften Leopoldina

Jägerberg 1

06108 Halle (Saale)

### The Indian National Science Academy (INSA)

The Indian National Science Academy (INSA), established in 1935, is an apex body of Indian scientists representing all branches of science with the objectives of promoting science in India and harnessing scientific knowledge for the cause of humanity and national welfare, safeguarding interests of Indian scientists, establishing formal linkages with international bodies, promoting international collaborations and giving opinion on national issues after debate and discussions.

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# Raghavendra Gadagkar



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Raghavendra Gadagkar has established an active school of research in the area of Animal Behaviour, Ecology and Evolution at the Indian Institute of Science. The evolution of cooperation in social insects, such as ants, bees and wasps, is a major goal of his research. He has published 290 research papers & articles and two books – *Survival Strategies* (HUP, USA, 1997) which explains advances in behavioural ecology and sociobiology for non-specialists and *The Social Biology of Ropalidia marginata* (HUP, USA, 2001) which summarises his own research. He has received numerous awards and fellowships. Gadagkar is President, Indian National Science Academy. As the Founder Chair of the Centre for Contemporary Studies, he aims to forge meaningful interaction between the natural and human sciences.



## Can we understand an insect society, and why should we care?

Many insects such as ants, bees and wasps organise themselves into societies with sophisticated organisation, communication and division of labour, paralleling and sometimes surpassing our own societies. We therefore have a natural curiosity to understand how these tiny insects can achieve such feats of social organisation. What are the rules that govern their lives and how does a bee or a wasp know what to do when?

In this talk I will illustrate the efforts of my research group to understand the workings of the primitively eusocial wasp *Ropalidia marginata* in peninsular India. My goal will not merely be to convey the product of our research but even more to describe the process of our science, our methodology and the logic that drives our experiments. I will conclude by reflecting on what we can learn from insect societies and argue that understanding insect societies helps us to reflect on how and why we live our lives the way we do and thus to better understand ourselves.

## Programme

### 05:00 p.m. Welcome

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Prof. Dr. Jörg Hacker ML  
President German National Academy of Sciences Leopoldina

### Lecture

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#### Can we understand an insect society, and why should we care?

Raghavendra Gadagkar ML  
President Indian National Science Academy (INSA)

### Discussion

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