

Obituary: Rainer Rosengren

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One of the pioneers in ant research, Rainer Rosengren, passed away on February 4th, a couple of months before his 70th birthday. Rosengren's work focused on red wood ants and his work on route fidelity, visual memory and recruitment behaviour in these ants has gained much attention among students of social insects. A lesser known part of his literary production concerns humans as biological creatures. In this vein he wrote several essays on ethology and evolutionary biology in a true Darwinian spirit during the 1960s. These essays build on a Lorenzian tradition and picture him as a persuasive writer eager to engage in debates. Indeed, these essays brought into focus issues that later were championed by E.O. Wilson and set off the sociobiology controversy.

During his entire career he worked in Helsinki University at the Department of Zoology, later renamed to the Department of Ecology and Systematics, where he held a position as a lecturer. In 1999 he was awarded the title Professor by the president of Finland, for his scientific achievements. His own work centered on red wood ants in the *Formica* group, and his interest in these ants began long before he began his studies at the university. Despite his strong focus on social insects, he had an extremely broad interest in all issues related to evolutionary biology. Being a broadly educated person, he also was an inspiring teacher. Consequently he attracted a number of gifted students who were not afraid to tackle also difficult problems. The research topics encompassed orientation, memory and diurnal rhythms as well as reproductive allocation and sex ratio studies. In collaboration with Pekka Pamilo, he published several seminal papers on the reproductive biology of *Formica* ants, among the first ones to use genetic markers in assessing colony kin structure and population structure in these ants. In a paper published already in 1983 together with Pamilo in *Acta Entomologica Fennica*, he outlined many of the ideas and concepts that were to become central to social insect research a decade later. This paper focused on the causes and consequences of polygyny and polydomy.

Rosengren acted as a catalyst for social insect research in Finland. Without his initiative and inspiration ant research in Finland would probably not exist.

Among his first PhD students were Kari Vepsäläinen and Pekka Pamilo, both internationally well known, and others were to follow later. During the 1990s he was actively participating in several research projects. Most of his efforts he devoted to experimental work on learning and memory in ants, but also several projects on the genetic population structure of *Formica polyctena* and *Formica rufa* were on his agenda.

Rosengren's most recent literary contributions comprise an extensive essay on the Finnish philosopher Edward Westermarck's relation to Darwin. This essay was finished already a few years ago, but still awaits publication. It uniquely captures Rosengren's scientific qualities, including his perpetual willingness to learn new concepts, to adopt new methods and to question conventional wisdom. This atti-



Rainer Rosengren, 2001 (photograph by Christine Johnson).

tude, combined with an exceptionally broad general education, a kind understanding of all things human and a wonderful sense of humour made him a truly inspiring colleague and dear friend. His multifaceted character and interests were perhaps best captured by the literature he had on his bedside when he died – The Book of Job and a 500 page manual for advanced statistics.

List of scientific publications by Rainer Rosengren (except abstracts of congress contributions and purely popular work)

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