

## Brief CV: Prof. Dan-E. Nilsson

*Born* in Goteborg, Sweden, 1954 (civil reg nr 541113-5014)

*Married* to Maria Abbe Nilsson, a daughter born 1995 and a son born 1998.

*BSc* 1977, Chemistry–Biology–Zoology, University of Göteborg.

*PhD* 1983, Structural Zoology, University of Lund.

*Docent (DSc)* 1987, University of Lund

*Postdoctoral fellow* 1983 - 1984, Department of Neurobiology, Australian National University, Canberra, Australia

*Research fellow (Forskarassistent)* 1984 -1989, Department of Zoology, University of Lund

*Lecturer (Universitetslektor)* 1989 - 1995, Department of Zoology, University of Lund

*Professor*, chair in Zoology: functional morphology 1995, Department of Zoology, from 2002 Department of Cell and Organism Biology, from 2010 Department of Biology, Lund University

*Visiting Fellow*: Centre for Visual Sciences, Australian National University, Canberra, 1989 –1990

*Visiting Professor*: School of Biological Sciences, Flinders University, South Australia, 1996

*Fellow* of the Institute for Advanced Studies (Wissenschaftskolleg), Berlin 1997

*Visiting Professor*: Vision Touch and Hearing Research Center, University of Queensland, Australia, 1999

*Deanship: Research Dean (Prodekanus)*: Natural Sciences faculty, Lund University 2000-2006

*Member* of the Biology committee of the Swedish Natural Science Research Council 1997-2000

*Chairman*: National Professors Council for Basic Research 1996-1998

*Member* of Lund University Strategic Research Committee 1999

*Member* of the National Committee of Physiology and Pharmacology, 2007-current

*Member* of the Advisory Board of Sven Lovén Centre 2008-current

*Chairman* of Lund Biology Centre Planning Committee 1996-2001

*Chairman* of the Faculty Appointments Board for Biology and Geosciences 2000-2006

*Chairman* of the Faculty Library Board 2006-2009

*Chairman* of the Biology Department Fusion Board 2009

*Member* of the Management Group of the Biology Dept. Lund University 2010-current

*Organiser* of the International Conference on Invertebrate Vision, 2001, 2007, 2013

*Organiser* of Crafoord Symposium: Light and Vision in Biology, 2007

*Editorial board* of the Journal of Comparative Physiology A 1996-2008

*Editorial board* of Zoomorphology 1995-1998

*Editorial board* of Acta Zoologica 1996-2004

*Editorial advisory board* of Trends in Comparative Biochemistry & Physiology 2005 - current

*Member* of the Crafoord prize committee 2010

*Scientific award*: The Florman award, Royal Swedish Academy of Sciences 1988

*Scientific award*: The Linnaeus prize in Zoology 2013, from the Royal Physiographic Society

*Fellow* of the Royal Physiographic Society, elected 1998

*Fellow* of the Royal Swedish Academy of Sciences, Stockholm, elected 2002

<http://www.kva.se/en/contact/Kontakt-sida/?personId=3147>

*Fellow* of the Academia Europaea, elected 2002

*Fellow* of the German Academy of Natural Scientists, Leopoldina, elected 2005

<http://www.leopoldina.org/en/members/list-of-members/member/1129/>

*Graduated PhD students:* Dr Alf-Inge Ro 1993, Dr Ann-Charlotte Järemo Jonson 1995, Dr Jan-Olof Seyer 1998, Dr Pär Brännström 1999, Dr Marie Dacke 2003, Dr Karin Nordström 2003, Dr. Megan O'Connor 2009. Ronald Petie 2012

*Current PhD students:* John Kirwan

*Postdoctors:* Eric Warrant (Australia) 1990-1992, Melissa Coates (USA) 2003-2004, Charlotta Skogh (Lund) 2003-2004, Anders Garm (Denmark) 2003-2008, Yves Poussart (Canada) 2005, Thomas Nørregård (Switzerland) 2007-2008, Fredrik Andersson (Lund) 2006-2007, Björn Samuelsson (Lund) 2009-2012, Cynthia Tedore (USA) 2013- current, Michael Bok (USA) 2013-current, Jochen Smolka (Germany) 2014- current

*Major research grants 2004-2014*

Swedish Research Council 2002-2005: 4.5 MSEK

Crafoord Foundation 2006: 1 MSEK

Swedish Foundation for Strategic Research 2004-2008: 5 MSEK

Swedish Research Council 2005-2008: 3 MSEK

Crafoord Foundation 2009: 2 MSEK

Swedish Research Council 2008-2010: 3 MSEK

Knut and Alice Wallenberg Foundation 2011-2016: 35 MSEK

Swedish Research Council 2011-2015: 4.4 MSEK

Lund University Science Faculty Infrastructure grant 2014: 5 MSEK

Nilsson has published in excess of 100 scientific papers, including a smaller number of book chapters. He has also published two books, one of which is a popular textbook now on its 2<sup>nd</sup> edition.)

*Key publications*

Nilsson D-E (1983) Evolutionary links between apposition and superposition optics in crustacean eyes. **Nature** 302: 818-821

Nilsson D-E, Land MF, Howard J (1984) Afocal apposition optics in butterfly eyes. **Nature** 312: 561-563

Nilsson D-E (1988) A new type of imaging optics in compound eyes. **Nature** 332: 76-78

Nilsson D-E, Pelger S (1994) A pessimistic estimate of the time required for an eye to evolve. **Proc R Soc Lond B** 256: 53-58

Dacke M, Nilsson D-E, Warrant EJ, Blest AD, Land MF, O'Carroll DC (1999) Built in polarizers form part of a compass organ in spiders. **Nature** 401: 470-473

Land MF, Nilsson D-E (2002, 2012) **Animal Eyes**, Oxford Univ Press, 221 pp

Dacke M, Nilsson D-E, Scholtz CH, Byrne M, Warrant EJ (2003) Insect orientation to polarized moonlight. **Nature** 424: 33

Nilsson D-E, Gislén L, Coates MM, Skogh C, Garm A (2005) Advanced optics in a jellyfish eye. **Nature** 435: 201-205

Nilsson D-E (2009) The evolution of eyes and visually guided behaviour. **Phil Trans R Soc B** 364: 2833–2847

Garm A, Oskarsson M, Nilsson D-E (2011) Box Jellyfish use Terrestrial Visual Cues for Navigation. **Current Biol** 21: 798-803

Nilsson D-E, Warrant EJ, Johnsen S, Hanlon R, Shashar N (2012) A unique advantage for giant eyes in giant squid. **Current Biol**. 22: 1-6

Nilsson D-E (2013) Eye evolution and its functional basis. **Visual Neuroscience** 30: 5–20

Nilsson D-E, Warrant EJ, Johnsen S (2014) Computational visual ecology in the pelagic realm. **Phil Trans R Soc B** 369: 1-14; 20130038