

## CURRICULUM VITAE

*Barbara Ekbom*

**Born:** Oakland, California, USA. October 6, 1950

### **Education:**

Bachelor of Arts, major: Statistics. 'summa cum laude'  
March, 1973. University of California at Riverside

PhD in Entomology, Swedish University of Agricultural Sciences. May 1981.

### **Professional Experience:**

Scientific Officer (Försöksledare), Swedish University  
of Agricultural Sciences. Applied Entomology Division  
Dec 1981 – May 1987

Associate Professor (Docent), May 1987 – June 2000

Acting Head (tf statsagronom), Applied Entomology  
Division, Jan 1992 - Jan 1993

Department Chairman, Dept of Plant and Forest Protection, Swedish  
University of Agricultural Sciences, July 1993-July 1994

Department Chairman, Dept of Entomology, Swedish  
University of Agricultural Sciences, July 1994-July 1999

Full Professor, June 2000 – present

Vice Department Chairman, Dept of Entomology, Swedish  
University of Agricultural Sciences, 1 Nov. 2001 to 30 June 2002

Department Chariman, Dept. of Entomology, Dept of Entomology, Swedish  
University of Agricultural Sciences 1 July 2002 – 31 Dec. 2003

### **Major research grants:**

1980-1986: From Swedish Council for Forestry and Agricultural Research: Population dynamics of the  
Bird cherry-oat aphid. (with Staffan Wikteliu) approx 500,000 Swedish crown per year.

1980-1982: From Swedish Natural Science Research Council: Population dynamics of the Bird cherry-oat  
aphid . (with Staffan Wikteliu) approx 50,000 Sw crowns per year.

1989-1992: From Swedish Council for Forestry and Agricultural Research: Movement and motivation in  
carabids and its relationship to predatory behavior. approx 300,000 Sw crowns per year.

1989-1992: From Swedish Council for Forestry and Agricultural Research: Population dynamics of the  
pea aphid. (with Staffan Wikteliu). approx 400,000 Sw crowns per year.

1992-93: From Trygger Foundation: Alternative control of insect pests in oilseed crops. 280,000 Sw  
crowns.

1992-1995: From Swedish Council for Forestry and Agricultural Research: Population dynamics of natural enemies to pests in agriculture: biological control through habitat management. (with Henrik Wallin). approx 450,000 Sw crowns per year.

1992-1994: From the Swedish Agency for Research Cooperation with Developing Countries (SAREC): Management of stemborers on small scale farms in Africa. (with Peeter Päts) approx 350,000 Sw crowns per year.

1992- 1996: From Nordisk Ministerråd (NKJ) coordination of Control of insect pests in oilseed crops without insecticides 50,000 Dkk per year

1993- 1996: From Stiftelsen Lantbruksforskning (SLF): How pollen beetles (*Meligethes* spp.) choose host plants. 400,000 Sw crowns per year

1994- 1997: From Swedish Council for Forestry and Agricultural Research: Glucosinolates and oilseed rape insect pests. (with Kristina Glimelius and Lars Rask) approx 300,000 Sw crowns per year.

1994-1997: From Swedish University of Agricultural Sciences - Faculty of Agriculture: Glucosinolates and oilseed rape insect pests. (with Kristina Glimelius and Lars Rask) approx 700,000 Sw crowns per year.

1995: From Stiftelsen Oscar och Lili Lamms Minne: Induced systemic resistance: Can bacteria protect plants from aphids. (with Sadhna Alström) 170, 000 Sw crowns per year

1995 - 1997: From Swedish Council for Forestry and Agricultural Research: Improving predator efficacy in agricultural landscapes: the relationship between dispersal patterns, population dynamics and individual movement strategies. (In Cooperation with Dept for Quantum Chemistry at Uppsala University) approx 360 000 Sw crowns per year.

1997-1998: From Carl Trygger Foundation: Modeling of insect populations, 200 000 Sw crowns.

1997-1998: From EU - Contractor for EU post-doc (Richard Hopkins). For post-doc 56 000 ECU, for department 19 600 ECU.

1997-1999: From EU - concerted action (CA) FAIR-CT96-1314. Biocontrol of Rape Pests - Member of Steering Group.

1997-2000: From Swedish Council for Forestry and Agricultural Research: Cultivation techniques developed using models and field trials become control methods against pests in vegetables. 433 000 SEK per year.

1997-2001: From Swedish Council for Forestry and Agricultural Research: Biodiversity and natural enemies in agriculture: habitat quality, dispersal ability and landscape heterogeneity. (with Jan Bengtsson and Uno Wennergren). 900 000 SEK per year

1998-2001: From Swedish Council for Forestry and Agricultural Research: Natural enemies and partial resistance against pollen beetles. 433 000 SEK per year.

1999-2000: From Carl Trygger Foundation: Modeling of insect populations, 200 000 SEK.

2001: From Swedish Oilseed Growers Association: Alternative control of insects in oilseed in organic agriculture. 80 000 SEK

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2001: From the Swedish National Agricultural Advisory Board: Insecticide resistance in pollen beetles, 100 000 SEK.

2001: From SIDA/SAREC (Swedish International Development Agency): Landscape ecology and vegetation associations of *Anopheles minimus* habitats using GIS and remote sensing in Northern Thailand (PhD grant for Hans Overgaard) 180 000 SEK

2001-2003: From Swedish Research Council of Environment, Agricultural Sciences and Spatial Planning. The landscape ecology of plant protection in organic agriculture (with Jan Bengtsson and others), 2 000 000 SEK per year.

2002-2005: From the Swedish University of Agricultural Sciences: A strategic program in Molecular Ecology. 1 900 000 SEK per year

2002-2003: From Swedish Research Council of Environment, Agricultural Sciences and Spatial Planning. Risk assessment of transgenic insect resistant Brassicas: Benefits, gene escape and effects on non-target organisms, 1 350 000 SEK per year

2002: From Carl Trygger Foundation: Biological control of aphids in greenhouses, plant quality, 42 000 SEK

2002: From SIDA/SAREC (Swedish International Development Agency): Expansion of the host plant range of the diamondback moth (*Plutella xylostella*) beyond crucifers: can genetic differences among strains be detected? ( with Bernhard Löhr, ICIPE), 250 000 SEK

2002: From SIDA/SAREC (Swedish International Development Agency): Planning grant for Entomopathogens as a component in Integrated Pest Management of potato and sweet potato (with Pamela Anderson, CIP), 75 000 SEK

### **Journals – editorial board and referee:**

*Member of editorial board:* Annals of Applied Biology, Entomologia Experimentalis et Applicata, Basic and Applied Ecology, Canadian Entomologist

*Reviewer* for Environmental Entomology, Journal of Economic Entomology, Ent. exp. appl., Journal of entomological research, Acta Agric., Ambio, International Journal of Pest Management., Oikos, European Journal of Entomology, International Journal in Computer Simulation, Canadian Entomologist, Basic and Applied Ecology, Annals of Applied Ecology, Agriculture, Ecosystems & Environment, Bulletin of Entomological Research, Ecology, Ecological Applications, Agricultural and Forest Entomology

### **Teaching:**

Courses at the undergraduate level:

1. Basic courses in entomology for agronomy students, lectures and laboratory exercises, SUAS, 1977-2003
2. Lectures and labs in a course on natural enemies, SUAS, 1990
3. Course Leader for a course on biological control SUAS, 1992, 2000 and 2002
4. Course in Insect Ecology SUAS, 1993-2003, responsible for sections on: 1) population dynamics of natural enemies (predators, parasitoids, and insect pathogens), 2) agricultural entomology, 3) student projects.
5. Course Leader Insects in Agriculture 1998 - 2003
6. Developed a new course and course leader for Forest and Plant Protection 1998
7. Responsible for administration of Undergraduate education at Department of Entomology, 2002-2003

Post Graduate courses:

Nordic graduate courses, Invited lecturer at the following courses:

1. Epidemiology, Garpenberg, April 1981
  2. Nematological methods-sampling and extraction, Alnarp, March 1984
  3. Estimates of insect population densities - their use in pest management, Tune, Denmark, Nov. 1985.
  4. Predator-prey ecology. Assö, Sweden, Nov 1987
  5. Sampling and trapping for estimation of population density, Tune, Denmark, Nov. 1995.
  6. Insect/Plant interactions. Biri, Norway, Nov. 1996.
- Invited lecturer, PhD Summer School, Wageningen Agricultural University, the Netherlands; Scale Specific Crop protection for Smart Farming. August 1997
  - Invited lecturer, Nordic PhD course in Organic Agriculture, Denmark, 23 - 28 september 2001
  - Graduate course leader: Using ecological theory to address problems in applied ecology. guest lecturer Prof. Peter Karieva. April 1990.
  - Graduate course leader: The role of glucosinolates in plant defences, Uppsala, Oct. 1995.
  - Graduate course organized: Tropical Insect Ecology, Kenya, Jan 1999.
  - Graduate course leader: Biodiversity and ecosystem function, Nicaragua, Oct. 2000.

**Supervision of students/postdocs:**

Adviser for Lazaro Gonzalez, Cuba, scholarship from Swedish Institute. Received funds from BITS to organize a course in insect population ecology. Oct 1987- May 1988.

Adviser for Freddy Miranda, Nicaragua, master's degree through SUAS masters program in plant production. Topic : Assessment of the effect of biological and botanical insecticides against the diamond-back moth (*Plutella xylostella*) in cabbage in two regions in Nicaragua. 1992.

Adviser for Dr. Vili Harizanova, University of Agriculture Plovdiv, Bulgaria, scholarship from Swedish Institute. Topic: Biological control of the cotton aphid on on greenhouse cucumber with two natural enemies. April 1993-July 1993.

Adviser for Dr. Richard Hopkins, postdoc with financial support from Stiftelsen Lantbruksforskning (1995-1996) and EU-TMR program (1997-1998). Topic: Reproductive strategy of pollen beetles and other insects.

Extra Adviser for MSc. Jeninah Karungi, Makerere University, Uganda. SIDA/Sarec University support (2002-2004)

Adviser for senior thesis (examensarbete):

1. Ullalena Boström,
2. Ann-Charlotte Wallenhammar
3. Gunilla Nehlin
4. Eva Twengström
5. Christer Gustafsson
6. Helena Törnqvist
7. Uta Berhens
8. Eva Lena Johansson
9. Malena Telander
10. Malin Tornngren
11. Andreas Billqvist
12. Victoria Ferdinand
13. Sofia Larsson

14. Lina Norrlund
15. Anna Wassberg
16. Kristina Wänlund
17. Anna Svedling
18. Izzeldin Abugor

Graduate student Adviser to:

1. Philip Chiverton (PhD 1987) (co-adviser with S. Wiktelius)
2. Henrik Wallin (PhD 1987) (co-adviser with S. Wiktelius)
3. Annika Djurle (PhD 1996) (co-adviser with W. Umeareus)
4. Peeter Päts (PhD 1992) (co-adviser with S. Wiktelius)
5. Riccardo Bommarco (PhD 1997)
6. Annika Borg (PhD 1996)
7. Birgitta Rämert (PhD 1995)
8. Mette Petersen (PhD 1997)
9. Karolina Åsman (PhD 2001)
10. Johanna Jansson
11. Andreas Billqvist (FL 2000)
12. Alberto Sediles (Within Nicaragua project at Crop Sciences, SLU - SIDA)
13. Salla Hannunen (University of Helsinki, public defense scheduled for 10 april 2003)
14. Hans Overgaard (PhD 2001)
15. Örjan Östman (co-adviser with J. Bengtsson, PhD 2002)
16. Sandra Öberg

External examiner for PhD thesis: Denmark's Agricultural University - Feb. 1996 , Jan. 1997 and Dec. 1997, Norwegian University of Agricultural Sciences May 1997 and Feb. 2001, University of Madras, India June 1997.

Evaluation committee (betygsnämnd) - SLU - Jiaping Xue (June 1994), Jan Taipalensuu (Dec 1996), Ove Nystrand (May 1998) , Bo Söderström (March 1999) - Uppsala University Lars Tälleklint (1996) , Ann-Britt Florin (2001), Lisa Shorey (2002), Anna Cassel (2002), Christel Gustafsson (2003), Maria Sandvik-Widemo (2003) - Stockholm University Virpi Lindfors (Dec. 1998), Linköping University Elisabeth Lindqvist (2003).

#### **Administrative experience at Swedish University of Agricultural Sciences:**

Acting Head (tf statsagronom), Applied Entomology Division, Dept of Plant and Forest Protection, Swedish University of Agricultural Sciences, Jan 1992 - Jan 1993

Head of Department (prefekt), Dept of Plant and Forest Protection, Swedish University of Agricultural Sciences, July 1993-July 1994

Head of Department, (prefekt), Dept of Entomology, Swedish University of Agricultural Sciences, July 1994-July 1999

Leadership course for Department Heads, Swedish University of Agricultural Sciences, (Ledarutveckling, SLU); November 1996 – June 1997.

Vice Department Chairman, Dept of Entomology, Swedish University of Agricultural Sciences, 1 Nov. 2001 to 30 June 2002

Department Chairman, Dept. of Entomology, Dept of Entomology, Swedish University of Agricultural Sciences 1 July 2002 – 31 Dec. 2003

Member of Department of Plant and Forest Protection, steering committee Jul 1989-Jul 1992, Jan 1993-Jul 1993.

Member graduate student steering committee, Dept of Plant and Forest Protection. Jul 1989-Jul 1992.

Chairman, Committee for undergraduate education (Utbildningsnämnd), SLU, Uppsala; appointed April 1997 – September 1998

For the Faculty of Agriculture, SLU - review and suggestions for future structure of the faculty's activities within Crop production, soil sciences, crop protection and ecology. 1996.

**Administrative activities outside the Swedish University of Agricultural Sciences:**

Appointed to ICIPE (International Centre for Insect Physiology and Ecology) governing council - Jan. 1997 –2003 ( member Executive Board, chairman Programme Committee)

International Advisory Board - C.T. de Wit Graduate School for Production Ecology, Wageningen Agricultural University, the Netherlands. October 1997-2004

Member of Swedish Council for Forestry and Agricultural Research review group for agricultural research (SJFRs beredningsgrupp för jordbruksforskning) appointed May 1998 – ongoing. Chairman of the agriculture group 2001-2003, Chairman of review group for organic agriculture 2001.

Member of the review group for Oskar and Lili Lamm's Foundation, 2002-2003.

Member of Swedish International Development Agency (SIDA) research council: 2001-2003.

Evaluation committee for a position at Stockholms University - Department of Zoology. Universitets lektor - Fall 1997

Evaluation committee for a position at Oslo University - Førsteamanuensis i biologi (terrestrisk invertebratøkologi) - Spring 1997

Independent expert for EU - FAIR program, May 1995.

External reviewer for NWO, Netherlands organization for scientific research, research programme 'Biodiversity in Disturbed Ecosystems', August 1998.

External reviewer for the Leverhulme Trust, England , 1997.

External reviewer for The Norwegian Research Council (Norges forskningsråd) 1997,1998, 2001, 2002.

External reviewer for NERC, England, Aug 1995; for the Danish Environmental Board, Sept 1995; Norwegian research council 1997; for BARD (Israel), Nov. 1996.

Member ICIPE (International Centre for Insect Physiology and Ecology) Periodic External Review (IPER) Team. May-July 1996.

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Invited Participant - Workshop of International Experts on Biodiversity and Sustainable Agriculture, 14-17 Aug 1996. Invited by the Swedish Environmental Protection Agency (Swedish Scientific Council on Biological Diversity).

Invited Organizer - Workshop "Interchanges of insects between agricultural and surrounding landscapes" at the XX International Congress of Entomology, 25-31 Aug. 1996, Florence, Italy.

For SIDA (Swedish International Development Agency): participant in FAO regional meeting of pest control campaign in eastern/ central and southern Africa. Nairobi Jun 1987 ; participant in FAO Evaluation of the 1987 grasshopper campaign in the Sahel. Rome Dec 1987

For Denmark's Ministry of Environment, committee member for evaluation and recommendations on a strategy for coordinating of pesticide research in Denmark. Apr-May 1992.

**Other:**

England, Littlehampton and Holland, Leiden. Greenhouse biological control, May 1977.

England, Southampton, Rothamsted and Norwich. Cereal aphids and polyphagous predators. April 1981 (scholarship from Knut and Alice Wallenberg fund).

USA, Illinois, Michigan and Berkeley. Modelling in IPM. April 1983. (scholarship from College of Agriculture, SUAS).

Guest researcher at the University of Georgia, Department of Entomology. Aug 1988-Jun 1989. Host: Dr. John Pickering. (scholarship from KSLA, Carl-Fredrik van Horn fund).

University of Washington, Seattle. Department of Zoology, Prof. Peter Karieva, Feb 1989.

Agriculture Canada, Winnipeg and Saskatoon. Dr. R. Lamb and Dr. K. Pivnic. Cooperation on flea beetles in oilseed rape. April 1989.

Rothamsted, England, Dr. N. Wilding. Insect pathogenic fungi on aphids. Feb. 1990.

Field work at Mombasa, Kenya (in cooperation with ICIPE), Nov 1990 and Oct-Nov 1991.

Visit Yangling, China - Plant Protection Inst. (IVA) June 1992.

Visit Agricultural University Nicaragua (2 seminars) Dec 1992.

Visit University of Washington, Seattle. Department of Zoology, Prof. Peter Karieva, Oct 1994.

Visit from Prof. J.J. Lipa, Institute of Plant Protection Poznan, Poland. June 1993, 1998, 2000, 2002. Topic: Pathogens of insect pests of oilseed rape. Scholarship from KSLA.

Visit by Dr. Peter Turchin, May 1994. US Forest Service, Southern Forest Experiment Station, Louisiana, USA. Workshop on population dynamics.

Visit by Dr. Michael J. Weiss, June 1994. North Dakota, Agricultural Experiment Station, Dept of entomology. Financed by USDA.

Visit by Prof. Ingrid Williams, Dr. Guy Poppy, Nov. 1995. Rothamsted research center, UK. Financed by UK exchange monies

Visit by Prof. Svata Louda, May 1996, University of Nebraska, Lincoln, Nebraska, USA.

Visit by Prof. Nicolas Oguge, June 1999, Head of Zoology Department, Kenyatta University, Nairobi Kenya.

Invited speaker 1st EC-Workshop, *Estimating population densities and dispersal rates of beneficial predators and parasitoids in agroecosystems*. Aarhus, Denmark Oct 1993.

Invited speaker 3rd EU-Workshop, *Analysis of population processes and modelling of population dynamics of beneficial predators and parasitoids in agroecosystems*. Bristol, UK Nov 1995

Organizer - Symposium at XX International Congress of Entomology, Florence, Italy 1996: Interchanges of insects between agricultural and surrounding landscapes.

Member of the following IOBC (International Organization of Biological Control) working groups:

1. Integrated control in glasshouses.

Papers given at meetings:

Vantaa, Finland, 1979, Budapest, Hungary, 1987. (invited section chairman - scholarship from Swedish Council for Forestry and Agricultural Research (SJFR)), Copenhagen, Denmark, 1990.

2. Integrated control in oilseed rape.

Papers given at meetings:

Malmö, Sweden, 1988, Rothamsted, England 1990, France 1992.  
Zurich, Switzerland 1994.

3. Entomopathogens, participated in meeting:  
Wageningen, the Netherlands 1991.

4. Study group – Landscape management for functional diversity, member of the expert committee:

Bologna, 2003

Posters:

Fourth European Ecology Symposium, Holland Sept 1986.

7th International Rapeseed Congress, Poland May 1987.

XVIII International Congress of Entomology, Vancouver, Canada, July 1988 (poster and invited paper) (scholarship from College of Agriculture, SUAS)

OIKOS meeting, Linköping 1990.

Third International conference of Behavioural Ecology, Uppsala, Sweden, Aug 1990.

Nordic Plant Protection conferences, 1980, 1981, 1982, 1983, 1985, 1989, 1993. (papers given at all conferences).

XIX International Congress of Entomology, Beijing, China, July 1992 (2 papers) (scholarship IVA)

SIP, Zurich, Switzerland - 1995.

Invited lecture, Goettingen University, "Pollen beetles and Pesticides", November 1997

*Commuting Insects between Crops & Borders*. Invited lecture - "Risk Assessment of Genetically Manipulated Crops" at Wageningen University. 30 oktober 2001.

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Invited lecture: Symposium – Landscape structure, habitat fragmentation and biological control - at the Annual Meeting of the Entomological Society of America, Oct. 2003.