

Curriculum vitae

PROFESSOR PETER CALOW

PERSONAL

NAME: PETER CALOW

DEGREES/HONOURS O.B.E. (2000)
F.L.S. (1987)
FRSB, CBiol. (1985)
D.Sc. (Leeds 1984)
Ph.D. (Leeds 1972)
B.Sc. (Leeds 1969)

CAREER

2015 - Professor, Humphrey School of Public Affairs, University of Minnesota, Minneapolis, USA.

2015 - Professor, Department of Geography, Environment and Society, University of Minnesota, Minneapolis, USA.

2011- 2015 Research Professor, University of Nebraska-Lincoln, USA

2012- 2015 Operations-Director of USDA funded UNL Policy Research Centre

2004 - 2006 Director, Danish Environmental Assessment Institute

2013 - Adjunct Professor, University of Roskilde, DK

2004 - 2011 Honorary Professor, University of Roskilde, DK.
(Personal adviser to Rector on Environment and China initiatives)

2004- Emeritus Professor, University of Sheffield

1989 - 2004 Professor of Zoology, University of Sheffield

1996 - 2003 Director Environmental Businesses Network - a regional project aimed at supporting EIS and funded by ERDF.

1991 - 1995 Director of Institute of Environmental Sciences and Technology

1984 - 1989 Professor of Zoology & Head of Department University of Sheffield

1981 - 1984 Reader in Zoology University of Glasgow

1972 - 1981 Lecturer in Zoology, University of Glasgow

OTHER POSITIONS

Advisory Committees

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| 2010 | Member UK Chemicals Stakeholder Forum (organised by Department of Environment, Food and Rural Affairs (DEFRA), UK Government). |
| 2009- 13 | Chairman SCHER Working Group on possible improvements of risk Assessment approaches in view of risk management needs and effective Communication. |
| 2009- 11 | Member European Food Safety Authority (EFSA) Working Group of Scientific Experts appointed to assist the Authority assessing the quality of its scientific outputs. |
| 2009- 11 | Vice-Chairman EU Scientific Committee on Health and Environmental Risks (SCHER). |
| 2009- 10 | Chairman ECETOC task force on socio-economic assessment under EU REACH legislation. |
| 2004-09 | Member of EU Scientific Committee on Health and Environmental Risks |
| 2002-04 | Chairman of the External Science Advisory Board for the Long Range Research Initiative (LRI) of CEFIC. |
| 2001 | Member of Advisory Board to advise the UK Environment Agency and NSCA on environmental impact under IPPC. |
| 2001- 11 | Member of the Scientific Committee of the European Centre for the Ecotoxicology and Toxicology of Chemicals (ECETOC). |
| 2000-03 | Chairman of the UK Advisory Committee on Pesticides Environmental Panel. |
| 2000-04 | Member of the EC Scientific Committee on Toxicity, Ecotoxicity and Environment. |
| 1999-04 | Member of the scientific advisory group of the chemical industry's Long-Range Research Initiative (LRI). |
| 1999-02 | Member of ILSI (International Life Sciences Institute) HESI (Health & Environmental Sciences Institute) Executive Committee. |
| 1999-2016 | Member REXPAN, RIFM (Research Institute for Fragrance Materials Inc.) Panel of experts. |
| 1997-2003 | Member Client Board: UK Environment Agency's National Centre for Ecotoxicology and Hazardous Substances. |
| 1997- 2000 | Chairman of Direct Toxicity Assessment (DTA) Demonstration Programme Steering Group. [UK Environment Agencies and Industry Group] |
| 1997-2003 | Member of UK Advisory Committee on Pesticides (ACP) (MAFF, UK Government). |

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| 1996-2003 | Member of Board of Trustees of Health and Environmental Sciences Institute (HESI), a branch of International Life Sciences Inst (ILSI). |
| 1996-2000 | Member of English/Welsh Environment Agency REPAC for North East (UK Statutory Committee). |
| 1993-95 | Chairman of Joint UK Government/Business Task Force on the application of risk/benefit analysis to chemical controls. |
| 1991-92 | Member of Working Group advising EU DGXI on development of Biosciences in EC. |
| 1991-00 | Chairman of UK Department of the Environment Advisory Committee on Hazardous Substances (UK Government). |
| 1988-92 | Member of Royal Society Working Group on scientific priorities for pollutant control criteria. |
| 1988-89 | Chairman of N.E.R.C. Expert Review Group on river ecosystem dynamics. |

Other Academic Positions/Awards

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| 2018 - | Faculty in Water Resources Ctr UMN. |
| 2016- | Member of Water Council UMN. |
| 2017- | Fellow Institute on the Environment, UMN. |
| 2015 & 2018 | Doctoral Committee, Department of Geography, Environment and Society, UMN. |
| 2008 | Research Evaluation Review (biosciences), University Joensuu, Finland. |
| 2005 | SETAC EUROPE Education Award |
| 2004 | Velux Foundation Guest Professor, Roskilde University, DK (6 months). |
| 2002 | Appointment by Australian Government to review panel on human impacts research and human biology and medicine in Australia's Antarctic Sciences Program. |
| 2001 | Special Advisor for Earth and Environmental Sciences for UK RAE. |
| 2000-03 | Honorary Professor in the City University of Hong Kong |
| 1999-2003 | Chairman Academic Advisory Council University of Buckingham. |
| 1996-2003 | Member of University Council, University of Buckingham. |
| 1996 & 2003 | Appointed by Minister of Sciences and Technology, Portugal, to take lead role in Life Sciences Research Units Evaluation. |
| 1993-95 | Member of Research Degrees Committee - University of Luton |
| 1993-2003 | Member of University of Buckingham Academic Advisory Council |

- 1993 Member of appointment committee for Chair in Ecotoxicology at University of Stockholm.
- 1992-93 Member of External Peer Review of research group, Department of Biological Sciences, University of Keele.
- 1989-90 Secretary, Executive Committee Heads of University Biological Sciences.
- 1989 Visiting Professor, University of Rome.
- 1988 Member of Committee for appointment of Chair of Ecophysiology, University of Odense.
- 1987 Member of U.K. Zoology Liaison Group.
- 1987-88 Chairman Conference of U.K. Heads of Zoology Departments.
- 1986 Member of Advisory Committee of University Coimbra (Portugal) to establish Institute of Aquatic Biology.

International Societies

- 1999 Member of SECOTOX Board.
- 1997 Member of General Assembly of the European Environmental Research Organisation (EERO).
- 1995-99 Member Freshwater Biological Association Council
- 1991-94 Member of founding Committee for Society for the Promotion of Lifecycle Analysis Development (SPOLD).
- 1991-92 President SETAC Europe.
- 1990-91 President SETAC UK.
- 1989-92 ESF Ecotoxicology Committee (National and European).
- 1988-89 Vice-President of European Society of Evolutionary Biology.
- 1988-92 Council member of the Freshwater Biological Association.
- 1986-96 Ex officio member of Council of British Ecological Society.
- 1992- 04 Project Team Leader of Sheffield Green Business Club.

Editor

- 1991-95 Founding Editor of *Integrated Environmental Management*.
- 1988-92 Editor, *Current Advances in Biological Sciences*.
- 1986-98 Founding Editor of *Functional Ecology*.

Editorial Boards

Australasian Journal of Ecotoxicology (Editorial Board)

Ecotoxicology and Environmental Safety (Editorial Board)

Ecosystem Health & Medicine (Associate Editor)

Invertebrate Reproduction and Development (Editorial Board)

Journal of Aquatic Ecosystem Health (Editorial Board)

Integrated Environmental Management - a Newsletter (past Editor - 1991 - 1995)

Current Awareness in Biological Sciences (past Editor; 1980s)

Functional Ecology (Founding Editor - 1986 - 1998)

International Journal of Invertebrate Reproduction and Development (Editorial Board)

American Malacological Bulletin (1980s)

Malacologia (1980s)

Total research students: 22 PhDs and 5 Masters.

Grants and contracts

| <u>Date</u> | <u>Awarding Body</u> | <u>Project</u> | <u>Amount</u> |
|-------------|----------------------|---------------------------------|---------------|
| 2018 - | Min Dept Health | Future of Drinking Water (CoPI) | \$250k |
| 2012 – 2014 | NIFA/USDA | CAFIO-PRG | 766k USD |
| 2004 – 2006 | Danish Govt. | IMV | 30m DKK |

REFERENCES

Google Scholar statistics: total citations = >20,000 (n = 381); h = 79; i10 = 199.

- 394 Forbes, V.E. & CALOW, P. (2020) How contaminants affect population dynamics. In: M.C. Newman, *Fundamentals of Ecotoxicology*, Chapter 10. Taylor & Francis, London & Boca Raton, Fl.
- 393 CALOW, P, Lewandowski, A, Levers, L., Kirby E. (2020) The future of Minnesota Drinking Water: a framework for managing risk. 46pp. Prepared for Minnesota Department of Health.
- 392 CALOW, P. (2020). Technocracy turns people off. *Integrated Environmental Assessment & Management*, **16**, 8. <https://doi.org/10.1002/ieam.4226>
- 391 CALOW, P. (2019). Toxic chemical governance needs to address trade-offs to make it work. *Bioscience*, **69**, 953 – 954. <https://doi.org/10.1093/biosci/biz130>
- 390 CALOW, P. (2019). Making out that science is political is mistaken. *Integrated Environmental Assessment & Management*, **15**, 674 – 675. doi.org/10.1002/ieam.4190
- 389 CALOW, P & Levers, L. (2019) Lead in Minnesota water. Assessment of eliminating lead in Minnesota drinking water. With Minnesota Department of Health. Online March 8 2019. www.health.state.mn.us/communities/environment/water/docs/leadreport.pdf
- 388 CALOW, P., Kelley, S., Levers, L. Lewandowski, A., Kirby, E., Loth Ntouko Siewe, M. (2019). Interim report on the future of Minnesota drinking water: a framework for managing risk. 26 pp. Prepared for Minnesota Department of Health.
- 387 CALOW, P. (2018) Co-producers: frame only the questions. *Nature*, **562**, 494. <https://rdcu.be/97Qf>
- 386 CALOW, P. & Forbes, V.E. (2018) Ecotoxicology: more than wildlife toxicology. pp. 209-219. In *Toxicology and Risk Assessment: A comprehensive Introduction* (2nd Edition), Greim, H. & Snyder, R. (Editors). Wiley, Hoboken USA and Chichester, UK.
- 385 CALOW, P. (2018) Laws of life. *The Biologist*, **65**, 36-.

- 384- A.M. Api, D. Belsito, S. Bhatia, M. Bruze, P. CALOW, M.L. Dagli, W. Dekant, A.D. Fryer, L. Kromidas, S. La Cava, A. Lapczynski, D.C. Liebler, D. O'Brien, R. Parakhia, T.M. Penning, V.T. Politano, G. Ritacco, D. Salvito, T.W. Schultz, J. Shen, I.G. Sipes, (2017). Twenty three separate papers (with Calow as co-author) on human health and environmental safety assessments of specific chemicals. *Food and Chemical Toxicology*, **110**, S1 –S734.
- 361- A.M. Api, D. Belsito, S. Bhatia, M. Bruze, P. CALOW, M.L. Dagli, W. Dekant, A.D. Fryer, L. Kromidas, S. La Cava, J.F. Lalko, A. Lapczynski, D.C. Liebler, Y. Miyachi, V.T. Politano, G. Ritacco, D. Salvito, T.W. Schultz, J. Shen, I.G. Sipes, B. Wall. (2016). Twenty four separate papers on human health and environmental safety assessments of specific chemicals. *Food and Chemical Toxicology*, **97**, S1 –S241.
- 337 CALOW, P. (2017) A caution on the call to action in the defense of science for environmental decision making. *Integrated Environmental assessment and Management*, **13** (6), 971.
- 336 CALOW, P. (2017) The EU's ecological risk assessment. *Science*, **357**, 982.
- 335 CALOW, P. (2017) The importance of money as a common currency in ecosystem service valuation – a comment on the Roskilde Workshop recommendations for risk assessment. (Peer-reviewed letter). *Environmental Toxicology and Chemistry*, **36**, 866.
- 334 Forbes, V.E., Salice, C.J. Birnir, B., Bruins, R.J. F., CALOW, P., Ducrot, V., Galic, N., Garber, K., Harvey, B.C., Jager, H., Kanarek, A., Pastorok, R., Railsback, S.F. Rebarber, R. & Thorbek, P. (2017) A framework for predicting impacts on ecosystem services from (sub)organismal responses to chemicals. *Environmental Toxicology and Chemistry*, **36**, 845 – 859.
- 333 Van Wensem, J., Calow, P., Dollacker, A., Maltby, L., Olander, L., Tuvendal, M. & Van Houtven, G. (2017) Identifying and assessing the application of ecosystem services approaches in environmental policies and decision making. *Integrated Environmental assessment and Management*, **13**, 38-40. DOI: 10.1002/ieam. 1836.
- 332 CALOW, P. & Forbes, V. E. (2016). We are all biased, but the scientific process recognizes that and delivers despite it; still, it can do a better job. *Environmental Toxicology & Chemistry*, **35**, 1068 – 1069.
- 331 CALOW, P. (2015) Beyond Barcelona – making our science more valued. *SETAC GLOBE*, Special issue December 2015, 2 pages. <http://globe.setac.org/2015/setac-barcelona/keynote-speaker-peter-calow.html>
- 329- Api, A.M., Belsito, D., Bruze, M., Cadby, P. CALOW, P. Dagli, M.L., Dekant, W., Ellis, G., Fryer, A.D., Fukayama, M., Griem, P., Hickey, C., Kromidas, L. Lalko, J.F., Liebler, D.C., Miyachi, Y., Politano, V.T., Renskers, K., Ritacco, G., Salvito, D., Schultz, T.W., Sipes, I.G., Smith, B., Vitale, D.,

- Wilcox, D.K. (2015) Twelve separate papers on human health and environmental safety assessments of specific chemicals. *Food and Chemical Toxicology*, **84**, S1 – S122.
- 317- Api,A.M., Belsito,D., Bruze,M., Cadby, P. CALOW, P. Dagli,M.L., Dekant,W., Ellis, G., Fryer, A.D., Fukayama, M., Griem, P., Hickey, C., Kromidas,L. Lalko,J.F., Liebler, D.C., Miyachi, Y., Politano, V.T., Renskers, K., Ritacco, G., Salvito,, D.,Schultz, T.W., Sipes, I.G., Smith, B., Vitale, D., Wilcox, D.K. (2015) Twelve separate papers on human health and environmental safety assessments of specific chemicals. *Food and Chemical Toxicology*, **82**, S1 – S121.
- 316 CALOW, P. (2015) Why money matters in ecological valuation. *Integrated Environmental Assessment and Management*. 11, 331- 332. DOI: 10.1002/ieam.1621
- 315 Forbes, V.E. & CALOW, P (2015) Effects of contaminants on population dynamics. In: *Fundamentals of Ecotoxicology. The Science of Pollution*. Ed. M.C. Newman. CRC Press, Boca Raton. Pp. 319-323.
- 314 Api,A.M., Belsito,D., Bruze,M., Cadby, P. CALOW, P. Dagli,M.L., Dekant,W., Ellis, G., Fryer, A.D., Fukayama, M., Griem, P., Hickey, C., Kromidas,L. Lalko,J.F., Liebler, D.C., Miyachi, Y., Politano, V.T., Renskers, K., Ritacco, G., Salvito,, D.,Schultz, T.W., Sipes, I.G., Smith, B., Vitale, D., Wilcox, D.K. (2015) Criteria for the Research Institute for Fragrance Materials, Inc. (RIFM) safety evaluation process for fragrance materials. *Food and Chemical Toxicology*. **82**, S1 –S19.
- 313 CALOW, P. (2014) Benefits and costs need to be considered in managing the waters of the Great Plains in a sustainable way. *Prairie Fire*, p. 16-17, September issue.
- 312 CALOW, P. & Forbes, V.E. (2014) Ecotoxicology. In els. John Wiley & Sons, Ltd: Chichester. DOI: 10.1002/9780470015902.a0003245.pub2.
- 311 CALOW, P. (2014) Integrated approach is best on Nebraska river pollution. *Lincoln Journal Star*, column on 3 July, page B5.
- 310 CALOW, P. (2014) Environmental risk assessors as honest brokers or stealth advocates. *Risk Analysis*, 34, 1972 - 1977. DOI: 10.1111/risa.12225
- 309 Snow, D. & CALOW, P. (2014) The rising pressures on the water we drink. *Voices of the Governing Institute*, April 17. Online: <http://www.governing.com/gov-institute/voices/col-pressure-drinking-water-systems-land-use-agriculture-weather-infrastructure.html>
- 308 CALOW, P, Snow, D., Bartelt-Hunt, S., Forbes, V.E. (2014) Challenges for water quality policy in Nebraska. *Nebraska Legislative Planning Committee 2013 Report. Policy Briefs*. 8pp.

- 307 Snow, D., CALOW, P., Bartelt-Hunt, S., Forbes, V.E. (2014) Policy challenges for drinking water quality in Nebraska. *Nebraska Legislative Planning Committee 2013 Report. Policy Briefs*. 8pp.
- 306 Belsito, D., Bickers, D., Bruze, M., CALOW, P., Dagli, M.L., Fryer, A.D., Greim, H., Miyachi, Y., Suarat, J.H., Sipes, I.G. (2013) A toxicological and dermatological assessment of alkyl cyclic ketones when used as fragrance ingredients. *Food and Chemical Toxicology*, **62**, S1 – S44.
- 305 CALOW, P. & Forbes, V.E. (2013) Making the relationship between risk assessment and risk management more intimate. *Environmental Science & Technology*, **47**, 8095-8096.
- 304 Forbes, V.E. & CALOW, P. (2013) Developing predictive systems models to address complexity and relevance for ecological risk assessment. *Integrated Environmental Assessment and Management*, **9**, e75 - e80.
- 303 Seiller, T-B., Hunka, A., Melli, M. & CALOW, P. (2013) Bridging the gap between risk perception and ecotoxicology research – how can we communicate to improve our outreach? *SETAC Globe*, **14** (6), 2pp.
- 302 CALOW, P. (Chairman of Working Group) and 18 others. (2013) Making Risk Assessment More Relevant for Risk Management. Opinion of the Scientific Committees on: Health and Environmental Risks, on Emerging, Newly Identified Health Risks and on Consumer Safety. European Commission. European Union.
- 301 Seiller, T-B., Hunka, A., Melli, M. & CALOW, P. (2013) How can we communicate to improve outreach? *SETAC Globe*, **14** (4), 2pp.
- 300 CALOW, P. (2013) The trouble with sustainability. *Integrated Environmental Assessment and Management*, **9**, 343-344.
- 299 Forbes, V.E. & CALOW, P. (2013) Use of the ecosystem services concept in ecological risk assessment of chemicals. *Integrated Environmental Assessment and Management*, **9**, 269-275. [associated podcast: [http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1551-3793/homepage/ieam_podcasts.htm](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1551-3793/homepage/ieam_podcasts.htm)]
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- 297 Belsito, D., Bickers, D., Bruze, M., CALOW, P., Dagli, M.L., Fryer, A.D., Greim, H., Miyachi, Y., Suarat, J.H., Sipes, I.G. (2012) A toxicological and dermatological assessment of aryl alkyl alcohol simple acid ester derivatives when used as fragrance ingredients. *Food and Chemical Toxicology*, **50**, S269 – S313.

- 296 Belsito, D., Bickers, D., Bruze, M., CALOW, P., Dagli, M.L., Fryer, A.D., Greim, H., Miyachi, Y., Suarat, J.H., Sipes, I.G. (2012) A toxicological and dermatological assessment of aryl alkyl alcohols when used as fragrance ingredients. *Food and Chemical Toxicology*, **50**, S52 – S99.
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- 294 Belsito, D., Bickers, D., Bruze, M., CALOW, P., Dagli, M.L., Fryer, A.D., Greim, H., Miyachi, Y., Suarat, J.H., Sipes, I.G. (2011) A toxicological and dermatological assessment of cinnamyl phenylpropyl materials when used as fragrance materials. *Food and Chemical Toxicology*, **49**, S256 – S267.
- 293 Belsito, D., Bickers, D., Bruze, M., CALOW, P., Dagli, M.L., Fryer, A.D., Greim, H., Miyachi, Y., Suarat, J.H., Sipes, I.G. (2011) A toxicological and dermatological assessment of macrocyclic lactone and lactide derivatives when used as fragrance materials. *Food and Chemical Toxicology*, **49**, S219 – S241.
- 292 Belsito, D., Bickers, D., Bruze, M., CALOW, P., Dagli, M.L., Fryer, A.D., Greim, H., Miyachi, Y., Suarat, J.H., Sipes, I.G. (2011) A toxicological and dermatological assessment of macrocyclic ketones when used as fragrance materials. *Food and Chemical Toxicology*, **49**, S126 - S141.
- 291 Forbes, V. & CALOW, P. (2012) Problems and promises for the new paradigm of risk assessment and an alternative approach involving predictive systems models. *Environmental Toxicology & Chemistry*. **31**, 2663 – 2671.
- 290 Forbes, V. & CALOW, P. (2012) Ecotoxicology. In *Encyclopedia of Theoretical Ecology*. Eds. A. Hastings & L.J. Gross. University of California Press, Berkeley, Los Angeles and London, pp. 247-249.
- 289 CALOW, P. (Chairman) and 10 others on a Task Force (2011) *Environmental impact assessment for socio-economic analysis of chemicals: principles and practice*. ECETOC Technical Report **No. 113**, ISSN-0773-113, Brussels.
- 288 CALOW, P. (2011) We need cost effective achievement of REACH goals. *CHEMICALWATCH*, September 2011, p.27.
- 287 CALOW, P. (2011). Avoiding bias in safety testing design. *Toxicology Letters*, **205S**, S19.
- 286 Salvito, D., Lapczynski, A., Sachse-Vasquez, C., McIntosh, C., CALOW, P., Greim, H., & Escher, B. (2011). Macrocyclic fragrance materials – a screening level environmental assessment using chemical categorization. *Ecotoxicology and Environmental Safety*, **74**, 1619 – 1629.

- 285 Forbes, V.E., CALOW, P., Grimm, V., Hayashi, T.I., Jager, T., Katholm, A., Palmqvist, A., Pastorok, R., Salvito, D., Sibly, R., Stark, J. & Stillman, R. (2011). Adding value to ecological risk assessment with population modelling. *Human and Ecological Risk Assessment* **17**, 287 – 299.
- 284 CALOW, P. & Forbes, V.E. (2010). Ecological risk assessment should be value-relevant but not value-biased. *Integrated Environmental Assessment and Management* **6**, 784-785.
- 283 Api, A.M., Belsito, D., Bickers, D., Bruze, M., CALOW, P., Greim, H., Hanifin, J.M., McNamee, P.M., Rogers, A.E., Saurat, J.H., Sipes, I.G. & Tagami, H. (2010) Quantitative risk assessment of contact sensitization: clinical data to assess utility of the model. *Dermatitis*, **21**, 207-213.
- 282 Belsito, D., Bickers, D., Bruze, M., CALOW, P., Greim, H., Hanifin, J.M., Rogers, A.E., Saurat, J.H., Sipes, I.G. & Tagami, H. (2010) A safety assessment of branched chain saturated alcohols when used as fragrance ingredients. *Food and Chemical Toxicology*, **48**, Supplement 4, S1- S46.
- 281 Forbes, V.E., Olsen, M., Palmqvist, A., & CALOW, P. (2010). Environmentally sensitive life-cycle traits have low elasticity: implications for theory and practice. *Ecological Applications*, **20** (5), 1449-1455.
- 280 Forbes VE, & CALOW, P. (2010). Contaminant effects on populations. In: Newman MC. *Fundamentals of Ecotoxicology*, 3rd edn. CRC Press, Boca Raton, FL, USA, pp. 293-297.
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- 278 Forbes, V.E., CALOW, P., Grimm, V., Hayashi, T., Jager T., Palmqvist, A., Pastorok, R., Salvito, D, Sibly, R., Spromberg, J., Stark, J. & Stillman, R.A. (2010) Integrating population modelling into ecological risk assessment. *Integrated Environmental Assessment and Management*, **6**, 191-193.
- 277 CALOW, P. (2009) Pharmaceuticals in the environment: issues in balancing human health benefits with ecological risks. *Toxicology Letters* **189S**, S33.
- 276 Barnes, R.S.K., CALOW, P., Olive, P.J.W., Golding, D.W. & Spicer, J.I. (2009) The Invertebrates: a Synthesis [third edition; 2001]. Published in Japanese by Asakura Publishing Co.
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- dermatologic assessment of cyclic acetates when used as fragrance ingredients. *Food and Chemical Toxicology*, **46**, Supplement 12S, S1-S71.
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BOOKS (last 13 of 30)

- 1998 Ed. *The Encyclopedia of Ecology & Environmental Management*. Blackwell Science, Oxford, UK.
- 1997 Ed. *Handbook of Ecotoxicology*. Blackwell Science, Oxford, UK.

- 1997 Ed. *Handbook of Environmental Risk Assessment and Management*. Blackwell Science, Oxford, UK.
- 1997 *Controlling Environmental Risks from Chemicals. Principles and Practice*. John Wiley & Sons Ltd, Chichester, UK.
- 1996 Ed. *River Restoration*. Selected extracts from the *Rivers Handbook*. Blackwell Science
(with G Petts)
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(with G Petts)
- 1995 *The Invertebrates: A new synthesis*. Portuguese edition.
(with R.S.K. Barnes and P.J.W. Olive)
- 1995 Ed. *Evaluating and monitoring the health of large-scale ecosystems*. Springer-Verlag, Berlin
(with D J Rapport, C L Gaudet)
- 1994 Ed. *Handbook of Ecotoxicology*. Vol. II
Blackwell Scientific Publications, Oxford
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Blackwell Scientific Publications, Oxford
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Blackwell Scientific Publications, Oxford.
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Lewis Publishers.
(with A.M.V.M. Soares)

OTHER

More than 10 op/eds (2004-06) covering all major Danish dailies on topics including: valuing nature; the green revolution; environmental technology; markets need a helping hand; the right and left of environmental politics.

Reports from the Danish Environmental Assessment Institute (under my Directorship): Green Roads to Growth (Conference Proceedings); Road pricing in Copenhagen – a socio-economic assessment (in Danish); Getting proportions right – how far should EU impact assessment go?; Motorways versus nature – a welfare

economic valuation of impacts; Environmental harmful subsidies – linkages between subsidies, the environment and the economy; Looking beyond Kyoto – trade-offs and disagreements in climate policy; Rethinking the waste hierarchy.

PRESENTATIONS (2003-2020)

| | <u>Date</u> | <u>Meeting/Institution/Title</u> | <u>Role</u> |
|-----|--------------|---|---------------------|
| 306 | July 15 2020 | The future of Minnesota drinking water; a framework for managing risk. To State Legislative Coordinating Commission Water Subcommittee Virtual meeting. | Invited presenter |
| 305 | Feb 24 2020 | The future of Minnesota drinking water: a framework for managing risk. To State Clean Water Council | Invited participant |
| 304 | Nov 26 2019 | Science policy opportunities BIOL 1020 UMN | Presenter |
| 303 | Nov 22 2019 | Resilience panel. Resilient Communities Project Center for Urban and Regional Affairs. | Invited participant |
| 302 | Nov 15 2019 | Science policy opportunities. Neuroscience graduate program UMN | Presenter |
| 301 | Oct 8 2019 | Comparative risk assessment; Putting principles into practice. For Minn Dept Health | Presenter |
| 300 | Feb 13 2019 | Framework for managing risk in drinking water for Minn Dept Health | Invited keynote |
| 299 | Oct 29 2018 | Prioritizing contaminants in drinking water by comparing risks for a state (MN) stakeholder group supported by Minn Dept Hlth | Presenter |
| 297 | Jan 31 2018 | Why Silent Spring sets a bad example for science advice in | Guest lecturer |

- public policy. UMN HSEM 2516 class.
- 296 Dec 8 2017 Making risk assessment work for water protection policy. Water resources science seminar UMN Guest lecturer
- 295 Nov 15 2017 SETAC NA Invited speaker
Colgate-Palmolive Sponsored Student Luncheon Seminar;
Advice versus advocacy in using the science we do to inform environmental policy
- 294 Nov 13 2017 SETAC NA presenter
Don't copy Rachel; that is no way to give science advice for environmental policy
- 293 Oct 3 2017 Living with innovation Learning life UMN CCE Invited speaker
- 292 Dec 2016 Advice v advocacy at the science/public policy interface Freeman Seminar Invited participant
- 291 Oct 2016 UMN Geog coffee hour Risk assessors as stealth advocates or honest brokers Invited participant
- 290 Feb 2016 STEP FAR Panel Translating science into policy Invited participant
- 289 Nov 2015 UMN Env Engineers Risk assessors as honest brokers or stealth advocates Invited speaker
- 288 Nov 2015 SETAC NA presenter
We are all biased – that is why we need science in risk assessment – but it can do a better job
- 287 Nov 2015 SETAC NA presenter
How to identify and assess ecosystem services approaches

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| | | in decision making | |
| 286 | Sept 2015 | STEP FAR at Humphrey School. Happiness is a good risk assessment. | Invited speaker |
| 285 | May 2015 | SETAC EUROPE Personal thoughts on the science and SETAC over 25 years | Invited opening Keynote at annual meeting in Barcelona |
| 284 | Oct 2014 | SETAC Pellston wkshp on ecosystem services. | Invited participant and wg cochair |
| 283 | Sept 2014 | EXXON seminar and site visit: Science doing a better job in informing policy. | presenter |
| 282 | Aug 2014 | IUPAC San Francisco: Making risk assessment more relevant requires mechanistic models. | presenter |
| 281 | Apr 2014 | Fragrance industry Workshop on ecological risk assessment of personal care products | Keynote |
| 280 | Jan 2014 | Presentation to all Ne State Legislature on water quality policy | Invited |
| 279 | Dec 2013 | USEPA CRA Webinar: Challenges in making risk assessment more relevant for risk management: a view from the EU. | Invited |
| 278 | Nov 2013 | SETAC NA Paper: Getting at what really matters in managing ecological risk through mechanistic effect models. | Invited |
| 277 | Oct 2013 | Safety of scents. | Invited |

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| | | Seminar to Food Tech UNL. | |
| 276 | Sep 2013 | Presentation to Ne State Legislature Planning Ctte on Water quality. | Invited |
| 275 | Feb 2012 | Public hearing on improvements in risk assessment in the EU. Organized by the EU Commission Brussels. | Chairman |
| 274 | Aug 2011 | Avoiding bias in risk Assessment. EUROTOX 2011, Paris. | Invited speaker |
| 273 | July 2011 | Written and oral presentation for environmental scientists. Marie Curie Initial Training Network, EU. Dinard, France. | Co-leader |
| 272 | May 2011 | Energy and climate change policy; hot air from Europe or common sense? UNL/ NCESR anniversary event. | Invited speaker |
| 271 | Feb 2011 | REACH, risk assessment and socio-economic analysis. UK Chemicals Stakeholder Forum. | Invited speaker |
| 270 | Jan 2011 | Improving the risk assessment process – meeting the needs of risk managers. International Conference on Risk Assessment organised by European Commission (Brussels) | Invited speaker |
| 269 | June 2010 | Socio-economic analyses in REACH authorisations: case studies. CEFIC Workshop for Chemicals Industry. Brussels. | Invited speaker. |
| 268 | May 2010 | Review of environmental | Invited Speaker |

risk assessment in EU.
 Env Canada, Ottawa.
 Three-way meeting
 also with EU and USEPA.

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| 267 | Dec 2009 | Assessing risks so that they can be managed; challenges in measuring the benefits of environmental protection. EAWAG; Zurich. | Invited speaker |
| 266 | Sept 2009 | Pharmaceuticals in the environment: issues in balancing human health benefits with ecological risks. EUROTOX 09; Dresden. | Invited speaker |
| 265 | Aug 2009 | Socio-economic analyses need population models as a basis for risk assessment. RIFM Intl. Workshop: Integrating Population Modelling Into Ecological Risk Assessment. RUC 09. | Invited Keynote |
| 264 | Oct 2008 | Sustainable Development: Industry Challenges. Fragrance Manufacturers Association Annual Meeting NJ | Invited keynote |
| 263 | June 2008 | Counting the costs and benefits of chemical controls: Role of environmental risk assessment in socio-economic analysis. ECETOC ATM | Chairman |
| 262 | May 2008 | The European Dream; Environmental Policy Implications. Bard College NY, USA | Invited |
| 261 | May 2008 | Sustainable Development Challenges for the Fragrance Industry. JEFRA. Tokyo | Keynote |
| 260 | April 2008 | Presentation on Climate | Invited speaker |

Change Response.
Shanghai Jiao Tong
University.

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|-----|-------------|--|---|
| 259 | Sept 2007 | Pharmaceuticals in the environment – a problem invented by rich societies? ERAPHARM , York | Keynote |
| 258 | May 2007 | Whither science in EU Chemicals policy? SETA Europe annual Meeting, Porto. | Invited speaker |
| 257 | March 2006 | Green Roads to Growth 2 day policy forum with economists and EU policymakers exploring linkages between environmental policy and GDP. Copenhagen | Chairman |
| 256 | June 2004 | Roskilde University Conference. Ecology in a cost-benefit Society. | Organiser/ <i>Summing up</i> |
| 255 | May 2004 | RIFM Meeting for members. | Keynote speaker <i>Global regulatory requirements for the fragrance industry</i> |
| 254 | April 2004 | SETAC Europe annual meeting (Prague). | Keynote speaker <i>Ecological Realism: A personal view.</i> |
| 253 | August 2003 | SETAC Pellston Workshop. Population-Level. Ecological Risk Assessment | Participant. |
| 252 | June 2003 | First Workshop at the NordTox/NordEMS 2003. Bornholm, Denmark. | <i>Hormone Disrupters and Reproductive Toxicology.</i> |
| 251 | May 2003 | Sixth Finnish Conference of Environmental Sciences. Joensuu, Finland. | <i>Ecotoxicology and society: a basis for the risk management of chemicals.</i> |
| 250 | April 2003 | SETAC Europe 13 th Annual Meeting, Hamburg, German. | <i>SSDs – help or hindrance in ecological risk assessment?</i> |

