

[Updated Jan 2024]

*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 - 2019 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**

2022	Member of Minnesota State Governor's Clean Economy Workgroup in Climate Action Framework program. Final report: <a href="https://climate.state.mn.us/sites/climate-action/files/2022-05/cc-mn4-02.pdf">https://climate.state.mn.us/sites/climate-action/files/2022-05/cc-mn4-02.pdf</a>
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).
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**

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	<u>Ex officio</u> member of Council of British Ecological Society.
1992- 04	Project Team Leader of Sheffield Green Business Club.

### **Editor**

1991-95	Founding Editor of <i>Integrated Environmental Management</i> .
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1988-92	Editor, <i>Current Advances in Biological Sciences</i> .
1986-98	Founding Editor of <i>Functional Ecology</i> .
2020	Name used in prestigious reviews in <i>Functional Ecology</i> – CALOW-GRACE REVIEWS first appeared in 2020

### **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)

## RESEARCH PERSONNEL, STUDENTS AND FUNDING

### **Postdoctoral**

1993-95	Dr. A.W. Brooks	SERC Postdoctoral Research Assistant
1991-93	Dr. Q. Xu	SERC Postdoctoral Research Assistant
1991	Dr. A. Stuhlbacher	Austrian Government
1990	Dr. A. Basset	Royal Society
1989-90	Dr. E. Cox	Shell. Dietary requirements of <i>Daphnia magna</i> .
1989-90	Dr. N. Perrin	Lausanne, Switzerland (Supported by Royal Society)
1988-89	Dr. D. Glazier	Juniata College, U.S.A.
1988	Dr. N. El Halfway	Cairo, Egypt.

(Supported by British Council)

1988-89	Dr. D. McKenzie	Sheffield University Research Grant - Development and testing of a non-mammalian model for the testing of the potency of anaesthetic drugs
1988-89	Dr. I. Milne	EC Project
1987-89	Dr. D. Baird	NERC Postdoctoral Research Assistant.
1987-91	Dr. M. Bradley	EC then Unilever project
1986	Professor J. Baguna	To collaborate on geographical variation in triclads. (Supported by NATO)
1986-96	Dr. C. Naylor	EC Project
1985-86	Dr. J. Steven	WRc Project
1985-87	Dr. D. Linton	NSERC Fellow
1984	Dr. D. Dudgeon	Sabbatical from Hong Kong. To collaborate on energetics of freshwater caddis.
1984-87	Dr. L. Maltby	Water Research Centre
1983	Professor L. Rossi (June for 6 mths) (Sept. for 1 mth)	Department of Genetics, University of Rome. (Supported by Royal Society) (Supported by EC)
1983	Dr. F. Wrona	Department of Biology, University of Calgary. (Supported by University of Calgary).
1979-80	Dr. G. Parry	Sabbatical from Monash University, Australia. Collaborated on energetics and life cycles of marine gastropods. (Supported by Monash University).

**Total research students:** 22 PhDs and 5 Masters.

## Grants and contracts

<u>Date</u>	<u>Awarding Body</u>	<u>Project</u>	<u>Amount</u>
2022	Min Dept Health	State Drinking Water Plan (Advisee)	\$200k
2018 - 2021	Min Dept Health	Future of Drinking Water (CoPI)	\$250k
2012 – 2014	NIFA/USDA	CAFIO-PRG	766k USD
2004 – 2006	Danish Govt.	IMV	30m DKK
1998-2001	ERDF	EBN Project	£1.5m
1996-98	ERDF	ENVIRONET Project	£300,000
1996	British Council UK/HK Joint Research Scheme	Mesocosm Approach in Ecotoxicological Research	£5,000
1995	DoE	Support for <i>Daphnia</i> Conference	£4,400
1994	EC	Assessing the toxicity and bio-availability of poorly water-soluble compounds in aquatic ecosystems	£79,294
1994	EC	<i>Daphnia</i> Reproduction Test	42,958 ECU
1992	EC	<i>Daphnia</i> Workshop	£24,279
1991	SERC	Physiological responses of freshwater invertebrates to pulsed doses of metals and their ecological implications	£71,018
1991	Shell	<i>Daphnia</i> programme continued	£30,000
1991	EC	<i>Daphnia</i> Workshop	£ 7,000
1991	DoE	<i>Daphnia</i> Workshop	£ 2,300
1990	EC	<i>Daphnia</i> programme	£ 5,000
1990	Castrol	Impact of oil from road run-off on freshwater ecosystems	£187,000
1990	Unilever	Algal toxicity test	£15,000
1989	WRc	Development of system for	



		sediment toxicity tests	£ 6,000
1989	EC	Grant for EC Workshop	£10,000
1989	Shell	Optimal conditions for the culture of <i>Daphnia magna</i> for use in toxicological assays	£30,000
1988	WRc	Contribution to lectureship in ecotoxicology	£ 6,000
1988	Sheffield Univ. Res. Fund	Development and testing of a non-mammalian model for the testing of the potency of anaesthetic drugs	£18,000
1988	Royal Society	Support of Conference on Stress	£ 1,000
1988	Unilever	Diet of <i>Daphnia magna</i> <u>ca</u>	£90,000
1988	WRc	Investigation of field deployment of the "Gammarus Scope for Growth Assay"	£26,000
1988	EC	Genetic differences in <i>Daphnia magna</i> and its consequences for toxicity testing	£35,000
1987-88	WRc	Review of methods for assessing episodic pollution	£12,000
1987-89	Shell	Optimal conditions for the culture of <i>Daphnia magna</i> for use in toxicological assays	£18,000
1987-90	NERC	Causes and costs of stress tolerance; relevance for a theory for ecotoxicology (+ linked studentship) <u>ca</u>	£60,000
1986-87	EC	Genetic composition of <i>Daphnia magna</i> used for ecotoxicological purposes	£14,000
1986-89	EC (stimulation action)	Acid-water effects on freshwater invertebrates. (Twinned with Department of Genetics, University of Rome) <u>ca.</u>	£100,000
1987-90	NATO	Geographical variation in	£ 3,000

		reproductive strategies of one species of triclad. (Linked with Department of Genetics, University of Barcelona)	
1985-87	NATO	Geographical variation in reproductive strategies of one species of triclad. (Linked with Department of Genetics, University of Barcelona)	£ 4,000
1985-87	WRc	Physiological ecology of organisms used in ecotoxicology	£36,000
1983-84	M.S.C.	Effects of pollution on ecology and hypoxia tolerance of river invertebrates	£35,000
1981-83	M.S.C.	Trainee Technician <u>ca</u>	£ 3,000
1982-84	NERC	Effect of temperature on triclad energetics	£16,000
1979-82	SERC	Ageing in triclads	£20,000
1979	NERC	Respiratory rates of leeches	£ 6,670
1978	Royal Society	Leech/triclad projects	£ 2,500
1977-80	NERC	Investigation into the energetics of leeches with different life cycles	£14,000
1974-77	NERC	As above but on triclads	£10,500

## REFERENCES

**Google Scholar statistics: total citations = c.23000 (n = 390); h = 82; i10 = 224.**

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- 403 CALOW, P., Lewandowski, M. (2023) Lessons from Drinking Water Professionals: An Assessment of Drinking Water Governance in Minnesota. For Minnesota Department of Health. <https://hdl.handle.net/11299/259166>
- 402 CALOW, P. (2023) Where universities have a role in fighting disinformation. *Financial Times*, Letter Aug 28.
- 401 CALOW, P (2023) Storylistening's role in policy advice. *Science*, **379**, 1198. 10.1126/science.adg8025
- 400 CALOW, P (2022) What better education in science should mean St Paul Pioneer Press, 19 December. <https://www.twincities.com/2022/12/18/peter-calow-what-better-education-in-science-should-mean/>
- 399 CALOW, P. (2022) The proper role of experts. *Star Tribune*, Letters to the Editor. April 16.
- 398 CALOW, P. (2022) Environmental inequality: the other Minnesota paradox. *MinnPost*, Jan 2022. <https://www.minnpost.com/community-voices/2022/01/environmental-inequality-the-other-minnesota-paradox/>
- 397 CALOW, P. (2021) Just how important is the appliance of science to decisions on public policy? *Guardian Letter*, Oct 2 <https://www.theguardian.com/world/2021/oct/01/just-how-important-is-the-appliance-of-science-to-decisions-on-public-policy>.
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- 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](https://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](http://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.
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- 386 CALOW, P. & Forbes, V.E. (2018) Ecotoxicology: more than wildlife toxicology. pp. 209-219. In *Toxicology and Risk Assessment: A comprehensive Introduction* (2<sup>nd</sup> 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.

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- 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.
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- 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.
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## **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.