SHORT CURRICULUM VITAE

David A.T. Harper

NAME: HARPER, David Alexander Taylor

DATE OF BIRTH: 29th September 1953 **PLACE OF BIRTH:** Edinburgh
MARITAL STATUS: Married with three children

RESUMEE:

I am a geologist and palaeontologist with long-term aims focused on understanding the origination and evolution of animal-based ecosystems, their impact on and relationships to climate and environmental change in deep time. I also led one of Durham University's largest and most dynamic colleges (2011-2021), Van Mildert. Based on an ethos informed by the College motto of *sic vos non vobis* (not for yourselves), there is strong focus on outreach and volunteering together with the environment, its sustainability and student enrichment.

ACADEMIC AND PROFESSIONAL QUALIFICATIONS:

B.Sc. Second Class Honours (Upper Division), Imperial College, London, Summer 1975.
A.R.S.M. Second Class Honours (Upper Division), Summer 1975.
Ph.D. Entitled ' The brachiopod faunas of the Upper Ardmillan succession (Upper Ordovician) of the Girvan district, SW Scotland'. Queen's University, Belfast, Winter 1979.
Fellow of Geological Society (**FGS**), April 1976
Chartered Geologist (**C Geol**), April 1992
Corresponding Member of the Royal Danish Academy of Sciences and Letters, April 2004
European Geologist (**EurGeol**), September 2004
Doctor of Science (**D.Sc.**), Queens' University of Belfast, Winter 2005
Einstein Professor, Chinese Academy of Sciences, 2008
Foreign Member of the Royal Swedish Physiographic Society, March 2014
Doctor of Science (D.Sc. honoris causa), National University of Ireland, April 2022
Doctor of Science (FD honoris causa) University of Uppsala, January 2023.

EMPLOYMENT HISTORY:

University of Oslo, Norway	Postdoctoral fellow	(1980)
University of Dundee, Scotland	Postdoctoral fellow	(1981–1984)

University College, Galway, Ireland
Lecturer – Statutory Lecturer (September 1984 – April 1998)

University of Copenhagen, Denmark (May 1998 – Oct 2011)
Professor of Palaeontology (May 1998 – Oct 2011)
Deputy Director, Geological Museum (Feb 2002 – Dec 2003)
Deputy Head, Geology (Natural History Museum of Denmark) (Jan 2004–August 2006)
Acting Head, Geology (Natural History Museum of Denmark) (Sept 2006–May 2007)
Head, Geology (Natural History Museum of Denmark) (June 2007– November 2011)

Durham University
Principal of Van Mildert College **(Nov 2011–Oct 2021)**
Professor of Palaeontology, Earth Sciences **(Nov 2011–Oct 2021)**

Deputy Head of Colleges – Research	(Dec 2011–Nov 2013)
Deputy Director, Climate Impacts Research Centre	(January 2013-2016)
Chair, Environmental Sustainability Planning Group	(September 2017-Oct 2021)
Chair, Integrated Sustainable Travel Plan Group	(September 2017-Oct 2021)
Emeritus Professor of Palaeontology	**(October 2021-)**

RESEARCH THEMES:

My key research theme is the origin and early evolution of animals and animal-based communities, their biodiversity, biogeography and palaeoecology. My initial research on the stratigraphy and palaeontology of the Ordovician rocks of the Girvan district was largely monographic and was recognised by the **Clough Memorial Award** from the Edinburgh Geological Society. The description of Palaeozoic Brachiopoda using both conventional and statistical methodologies continues to be a focus of my research. The former led to an invitation to jointly revise with Sir Alwyn Williams various groups of Brachiopoda for the '**Treatise on Invertebrate Paleontology**'; the latter has led to the development of microcomputer software - '**PALSTAT**' package, which was completely rewritten and relaunched as '**PAST**' in collaboration with Dr Øyvind Hammer (University of Oslo). The integration of such data into models of global biostratigraphy together with those for the environmental and spatial distributions of fossil invertebrates are continuing objectives within my research programme. This programme has been recognized by the award of the **Lyell Fund** from the Geological Society, two **honorary doctorates** and the **William King Medal** from the National University of Ireland, Galway (NUI Galway and Uppsala)

Currently my main research interests have been modified regionally to include studies on the Lower Palaeozoic rocks in NE and N Greenland, Chile, China (including Tibet), Denmark, Estonia, Norway and Russia and my research in Greenland has been recognized by the award of **Crown Prince Frederik's Fund**. My participation as a scientific leader in the **Danish Galathea 3** expedition, was recognized by the Crown Prince of Denmark. My research targets some of the larger scale patterns and processes in the history of life. Together with a range of colleagues, new models for biotic change and distributions through the Early Palaeozoic, particularly targeting the Cambrian Explosion, Great Ordovician Biodiversification Event and the end-Ordovician extinction, are being developed and their relationships to climatic and environmental changes are being assessed through a range of multidisciplinary techniques. This research has been recognized by the **Jean-Baptiste Lamarck Medal** from the European Geosciences Union. A focus is the development of international networks through the International Commission of Stratigraphy and International Geoscience Correlation Programmes (IGCP), encouraging capacity building across the globe.

I have published some 400 scientific articles and 15 books.

RESEARCH STUDENTS:

During my career I have supervised successfully some 20 Ph.D. students (University of Copenhagen, National University of Ireland, Galway, Tromsø University, Uppsala University and Durham University), 15 Cand. scient. students (University of Copenhagen) and some ten internships (Durham University). I have directed six postdoctoral fellows.

RECENT EXTERNAL POSITIONS OF RESPONSIBILITY:

- Editor, for the Palaeontological Association's journal, *Palaeontology* (1996–2002).
- Associate editor, Geological Journal (1998–2012), Swiss Journal of Geosciences (2004–2016), Swiss Journal of Palaeontology (2016–), Palaeoworld (2005–2019), Paleontological Contributions (2008–), Scientific Reports (2015–2019).
- Editor, *Lethaia* (2003–2021); Co-editor-in-chief, Palaeoworld (2019-)

- Vice President Irish Geological Association (1996–1998).
- Vice President Palaeontological Association (2002–4), Chair, Publications Board (2004–8).
- Co-leader IGCP (UNESCO) projects 503 (2004–2010), 653 (2016-2021).
- Member of IGCP (UNESCO) scientific panel (2007–2015).
- President, International Palaeontological Association (2006–2010).
- Chair, International Subcommission for Ordovician Stratigraphy (2008–2016).
- Member of Earth Sciences panel, Swedish Research Council (2005–2012, 2020).
- External examiner (BSc): University College Cork (2007–11), University of Leicester (2008–12), National University, Ireland, Galway (2011-2013, 2021), University College Dublin (2012-2016), (BSc and MSc): Imperial College, London (2015-2019); (MSc): University of Bristol (2016-2019). Substantial number of MSc and PhD theses.
- Member of evaluation panel of Earth Science Research Centres in Portugal (2008–2009).
- Vice President, Palaeontographical Society (2012-2014).
- Honorary Fellow, Natural History Museum, London (2013-).
- President, Palaeontological Association (2014-2016).
- Guest Professor, Lunds Universitet (2014-2020).
- Guest Researcher Lunds Universitet (2021-)
- Visiting Professor, CNRS, Université Lille 1 (2014).
- Leader of evaluation of panel of Earth Science programmes in the University of the West Indies (2014).
- Leader of evaluation of evaluation panel of Paleontological Institute and Museum, University of Zürich (2015).
- Member of Scientific Advisory Board, Naturalis (Netherland's Biodiversity Centre and Natural History Museum; 2014-2023).
- Member of evaluation panel, School of Earth and Space Sciences, Peking University (2015) and member of School's advisory body (2015-2020).
- Chair, International Commission on Stratigraphy (2016-).
- Distinguished Visiting Professor, China University of Geosciences (2017-2022).
- Member of 'earth and other sciences' evaluation panel, Portuguese Research Council (FCT; 2018-2019, 2022).
- Guest Research Professor, Chinese Academy of Sciences, Nanjing (2019-).
- Research Associate, Royal Scottish Museums (2019-).

RECENT GRANTS:

- FNU (Danish Research Council): Rapid transitions from Greenhouse-Icehouse-Greenhouse climates 440 million years ago: New investigations of the palaeotropics in Early Palaeozoic North Greenland. DKK 850,000. 2006.
- FNU (Danish Research Council): Fossil micro-organisms and ultrastructures in time and space (SEM hardware). DKK 850,000. 2006.
- INTERREG III (EU): Bridging the gap in Earth Science education between Denmark and Southern Sweden. SEK 500,000 (co-applicant with Prof. Per Ahlberg, Lund). 2007
- FNU (Danish Research Council): The Great Ordovician Biodiversification Event (GOBE). DKK 4,000,000.
  2008-2010.
- Carlsberg Foundation: The Cambrian roots of the Great Ordovician Biodiversification. DKK 100,000. 2009-2010.
- Geocenter Copenhagen: Expedition to Peary Land: Sirius Passet fauna and the Cambrian explosion. DKK 1,000,000. 2009.
- FNU (Danish Research Council) and Sino-Danish Directorate for Scientific Innovation: Expedition to Tibet. All costs covered. 2009.
- Agouron Institute: The Cambrian Explosion in the Sirius Pass, North Greenland. DKK 900,000. 2011 (co applicant with Prof. Don Canfield).

- FNU (Danish Research Council): Unravelling early animal evolution. DKK 2,000,000. 2012-2014.
- Wenner-Gren Foundation, Sweden: Roots of the Great Ordovician Biodiversification Event 2015-2017, SEK 110,000
- Leverhulme Fellowship. 2016-2019, £49,000
- International Union of Geosciences. 2016-2024, USD 500,000
- Leverhulme Emeritus Fellowship, 2022-2024, £21,000

KEY BOOKS:

- Benton, M.J. and Harper, D.A.T. 1997. *Basic Palaeontology*. 342 pp. Addison, Wesley and Longman, Harlow.
- Brenchley, P.J. and Harper, D.A.T. 1998. *Palaeoecology: Ecosystems, environments and evolution*. 402 pp. Chapman and Hall, London (now CRC).
- Harper, D.A.T. (ed.). 1999. *Numerical Palaeobiology*. 468 pp. John Wiley and Sons, Chichester.
- Hammer, Ø. and Harper, D.A.T. 2005. *Paleontological Data Analysis*. Blackwell, Oxford.
- Cusack, M. and Harper, D.A.T. (eds) 2008. Brachiopod Research into the Third Millennium. *Transactions of the Royal Society of Edinburgh: Earth and Environmental Sciences* 98, 456 pp.
- Harper, D.A.T., Long S.L. and Nielsen, C. (eds) 2008. Brachiopoda: Fossil and Recent. *Fossils and Strata* 54, 331 pp.
- Benton, M.J. and Harper, D.A.T. 2009. *Introduction to Paleobiology and the Fossil Record*. 1e Wiley- Blackwell, Oxford, 598 pp.
- Rasmussen, C.M.Ø., Harper, D.A.T. and Blodgett, R.B. 2012. *Late Ordovician Brachiopods from West- Central Alaska: systematics, ecology and palaeobiogeography*. *Fossils and Strata* 58, Wiley- Blackwell.
- Harper, D.A.T. and Servais, T. (eds) 2013. Early Palaeozoic Biogeography and Palaeogeography. *Geological Society, London, Memoir* 38, 496 pp.
- Rong Jiayu, Huang Bing, Zhan Renbin and Harper, D.A.T. 2013. Latest Ordovician and earliest Silurian brachiopods succeeding the *Hirnantia* fauna in south-east China. *Special Papers in Palaeontology* 90, 142 pp.
- Liljeroth, M., Harper, D.A.T., Carlisle, H. & Nielsen, A.T. 2017. Ordovician rhynchonelliformean brachiopods from Co. Waterford, SE Ireland: Palaeobiogeography of the Leinster Terrane. *Fossils and Strata* 62, 1-168. John Wiley & Sons.
- Benton, M.J. and Harper, D.A.T. 2020. Introduction to Paleobiology and the Fossil Record. 642 pp. 2e. Wiley- Blackwell, Oxford.
- Harper, D.A.T. and Seberg, O. (eds). 2023. The origins of all things [Altings Oprindelse]. Munksgaard, Copenhagen.
- Harper, D.A.T., Lefebvre, B., Percival, I.G. and Servais, T. (eds) 2023. A global synthesis of the Ordovician System. Part 1. *Special Publication* 532, Geological Society, London.
- Servais, T., Harper, D.A.T., Lefebvre, B. and Percival, I.G. (eds) 2023. A global synthesis of the Ordovician System. Part 2. *Special Publication* 533, Geological Society, London.
- Hammer, Ø. and Harper, D.A.T. (2024). *Paleontological Data Analysis*. 2e. Wiley-Blackwell, Oxford.