

CURRICULUM VITAE

1. **Name:** Hannu Lennart Mikael Fortelius ORCID 0000-0002-4851-783X
Sex: Male
Date: 19 December, 2018
2. **Date and place of birth:** 1 February, 1954, Helsinki, Finland
Citizenship: Finnish
Place of Residence: Helsinki, Finland
3. **Academic Degrees:** PhD, Zoology, University of Helsinki, Finland, 31 October 1985; Lic Phil, University of Helsinki, 1981; MSc, University of Helsinki, 1977
Title of Docent: Zoo-palaeontology (eläinpaleontologia), University of Helsinki, 3 February, 1986
4. **Language skills:** Swedish, Finnish and English: fully trilingual; other Nordic languages and German: fluent reading, functional speaking. Some Turkish, hardly any Chinese or Swahili.
6. **Current positions:** Since 1 January 2004, Professor (professori) of Evolutionary Palaeontology, Department of Geology, University of Helsinki

Current affiliations: Instructor, Turkana Basin Institute Field School, Stony Brook University (2013 -); Visiting Research Fellow, Institute of Vertebrate Palaeontology and Palaeo-anthropology, Chinese Academy of Science, Beijing (2008 -); Research Associate, Finnish Museum of Natural History (2011 -); Visiting Researcher, Centre for Ecological and Evolutionary Synthesis (CEES), University of Oslo (2015-); Research Awardee, Natural History Museum, Berlin (2016)

7. **Previous work experience:**

Employment:

2015-2017: Kristine Bonnevie Professor, Centre for Ecological and Evolutionary Synthesis (CEES), University of Oslo (20%)

2015-2017: Head, Division of Biogeoscience, Department of Geosciences and Geography, University of Helsinki

2001-2003: Acting Professor (vs professori) of Environmental Geology, Univ. of Helsinki

1996-2001: Professor (professori mvs) of Ecological Palaeontology, Univ. of Helsinki

1993-1996: Senior Research Fellow (vanhempi tutkija), Academy of Finland

1991-1992: Acting Senior Research Fellow (vs vanhempi tutkija), Academy of Finland

1988-1990: Acting Personal Extraordinary Professor (vs henkilökohtainen ylimääräinen professori) of Palaeontology, University of Helsinki

1984-2003: Curator (intendentti) of Palaeontology, Finnish Museum of Natural History

1982-1984: Research Associate (tutkimusassistentti), Academy of Finland

Major international projects directed:

- NOW Database, 1993- (general coordinator). The world leading and widely used public database of mammal localities and species of the Neogene of the Old World (<http://www.helsinki.fi/science/NOW/>). The NOW database enabled the rise of novel, spatially resolved and trait-based approaches to palaeobiology now known as ecometrics.
- Leader of the Palaeontology Team of the Orce Research Project (“First human occupation and its paleoecological context on the basis of the Plio-Pleistocene in the Guadix-Baza Basin. Archaeological Zone of Orce Basin (Granada, Spain)”) (2017 - 2021), coordinated by the University of Granada with funding from the Regional Government.
- Palaeontology and Palaeoenvironments of Middle Miocene primate-bearing beds of Damiao, Inner Mongolia (2007-2010). Directed jointly with Prof. Zhang Zhaoqun, Beijing. Partners from China, Finland, and USA.
- Coordinator of the INSPE project, designed to restart mammal palaeontology in the Islamic Republic of Iran (2006-2009). High-level collaboration with Iranian authorities. Partners from Iran, Finland, Japan, France, China, Finland, and France.
- Establishing an astronomically calibrated time scale for the classical fossil mammal localities of the Baode Red Clay (2003-2006). Directed jointly with Profs. Zhang Zhaoqun and Zhou Liping, Beijing. Official Sino-Finnish Scientific and Technological Cooperation Project. Partners from China, Finland, USA, and France.
- Multinational and multidisciplinary fieldwork in the continental Neogene of Shaanxi Province, China (1996-2001). Directed jointly with Prof. Qiu Zhuding, Beijing. Partners from China, Finland, USA, France, United Kingdom, and Sweden.
- Multinational and multidisciplinary fieldwork in the continental Neogene of the Ankara region, Turkey (1989-1995). Directed jointly with Prof. John Kappelman, Austin, Texas, and Prof. Berna Alpagut, Ankara). Geological, sedimentological, geochemical, taphonomical and palaeontological fieldwork. Participants from Turkey, Finland, USA, France, United Kingdom, The Netherlands, and Sweden.

8. Research funding as well as leadership and supervision:*Major research grants, last 5 years:*

- 2017-2020: Norwegian Research Council (one of three PIs). Drivers of evolutionary change (about microevolution, macroevolution and stasis). Circa 1 million euro.
- 2014-2018: Academy of Finland: "The Ecological Context of Human Origins and its Evolutionary Significance (ECHOES): Six Million Years of Changing Herbivore Resource Use in the Turkana Basin". 696 000 euro (total about 1 140 000 euro).
- 2010-2014: Academy of Finland: The Dynamics of Taxon Extinction in the Fossil Record. 700 000 euro (full cost model, total budget about 1 000 000 euro).

Major contributions to the early careers of excellent researchers:

My first graduate student was Jukka Jernvall, now world-leading developmental and evolutionary biologist and Academy Professor at the University of Helsinki. Together with developmental biologist Irma Thesleff we trained him with the explicit idea of creating a scientist who understood both sides of evolution, development and the fossil record and thereby helped launched him on a spectacular career. Together with Jernvall I supervised

Jussi T. Eronen, now Associate Professor at the Helsinki Institute of Sustainability Science. One of my most successful PhD students has been climate and vegetation modeller Hui Tang, now flourishing as a postdoc at the University of Oslo. My former postdoc Alistair R. Evans is currently Associate Professor at Monash University, Melbourne. In recent years I have had the privilege of mentoring my former postdoc, currently Tenure Track Professor Indrė Žliobaitė towards an increasingly impressive independent career in science.

9. **Merits in teaching and pedagogical competence:**

Involvement in curriculum planning and the implementation of courses: With a few early exceptions I have planned and implemented all my teaching myself. I have also been part of planning and implementation of several new courses based on team teaching, most recently my department's "flagship" course for freshmen, *Maan ja elämän kehitys (History of Earth and Life)*. Since March 2013 I have taught the two-week *Vertebrate Paleontology Module* in the Turkana Basin Institute Field School (Stony Brook University) in Turkwel, Kenya (<http://www.turkanabasin.org/fieldschool/>). I have been invited to repeat the performance every year since, including 2019, but had to decline once, in 2018.

Supervised doctoral dissertations: Jukka Jernvall (1995), Suvi Viranta (1996, jointly with Lars Werdelin, Stockholm), Pirkko Ukkonen (2001), Liu Liping (2003), Anu Kaakinen (2005, jointly with JP Lunkka, Oulu); Jussi Eronen (2006, jointly with Jukka Jernvall, Helsinki), Diana Pushkina (2007), Majid Mirzaie Ataabadi (2010), Hui Tang (2013, jointly with Jussi Eronen, Helsinki and Arne Micheels and Bodo Ahrens, Frankfurt), Juha Saari-nen (2015, jointly with Jussi Eronen) Leena Sukselainen (2016), Ferhat Kaya (2017 jointly with Jussi Eronen), Olja Toljagic (2018, jointly with Thomas F. Hansen and Lee-Hsiang Liow, Oslo), Kari Lintulaakso (2017 jointly with Jussi Eronen). Of these, all except two are currently employed in an academic position.

10. **Awards, prizes and honours:**

- Professor E.J. Nyströms pris (the Finnish Society of Sciences and Letters, 2017)
- Humboldt Research Award (Alexander von Humboldt Stiftung, 2015)
- Member of the Finnish Academy of Science and Letters (elected 2005)
- Member of the Finnish Society of Sciences and Letters (elected 1996)
- Fellow of the Linnean Society of London (elected 1993)
- Chair of the Geological Society of Finland (2001)

11. **Other academic merits:**

Examination of students for the doctoral degree

Tania King 1997 University of London (external examiner); Jørn Hurum 1997 University of Oslo (sensor); Stephen Williams 1999 University of Göteborg (member of examination committee); Ki Andersson 2003 Uppsala University (member of examination committee); Mark Tummers 2004 University of Helsinki (external examiner); Kristin Maureen Kovarovich 2004 University of London (external examiner); Loic Costeur 2005 Université Claude Bernard Lyon 1 (jury member); Vebjørn Veiberg 2007 University of Oslo (opponent); Barnaby Crocker 2008 University of London (external examiner); Philippa Brewer 2008 University of New South Wales (external examiner); Sarah Joomun 2010 University

of London (external examiner); Melanie Monroe 2011 University of Uppsala (opponent); Mikael Manninen 2013 University of Helsinki (pre-examiner); Laurence Dumouchel 2018, George Washington University (external examiner).

Publishing activities

- Finnish Zoological and Botanical Publishing Board (1990-2008; chair 1995-97)
- Evolutionary Ecology Research, editor (2001-)
- PNAS, guest editor (2015, 2017)
- Palaeobiodiversity and Palaeoenvironments, editorial board member (2009-)
- Evolutionary Theory, editorial board member (1988-2010)
- Evaluation of manuscripts for many journals including Nature, Science, PNAS, Nature Communications, Scientific Reports, Geology, American Naturalist, Evolution...

Evaluation of major grant applications and awards

I have a frequent record of reviewing of grant proposals for, among others, The National Science Foundation, European Research Council, LABEX, The Leverhulme Trust, The L.S.B. Leakey Foundation, The National Geographic Society, INTAS, Fonds zur Förderung der wissenschaftlichen Forschung, Smithsonian Institution, The Finnish Cultural Foundation, Alexander von Humboldt Stiftung, Natural Environment Research Council, OTKA, Alberta Ingenuity Fund, and, my favourite, The Horse Betting Levy Board.

Positions of scientific trust and administration

- ERC LS8 Starting Grant panel member (2017)
- Evaluation of the EVEREST Graduate School, Univ. of Tübingen, Germany (2015, 2018)
- University of Helsinki, Faculty of Science, scientific expert group “Matias” (2010-2017).
- University of Helsinki, Committee on Human Skeletal Collections (1999-2000; chair)
- Directory Board of the Finnish Museum of Natural History (1997- , chair 2007-2008)
- Division of Biogeoscience, Department of Geosciences and Geography, University of Helsinki, Head (2015 - 2017)
- Scientific Council of the Waldemar von Frenckell Foundation (2006 - , chair 2012 - 2018).
- Evaluation of the Senckenberg Nature Museum and Research Institute, 2013 (test-evaluator)
- Scientific adviser to the National Research Council (USA), Board on Earth Sciences and Resources (2007)
- The Paleobiology Database (PBDB), 2002- (member) See <http://paleodb.org/>
- Evolution of Terrestrial Ecosystems Consortium, 1996- (member)
- IUBS Programme on Integrated Climate Change Biology (iCCB), 2007-2012 (co-chair, with C. Scheidegger and N.C. Stenseth; programme continues).
- ESF Programme on Environments and Ecosystem Dynamics of the Eurasian Neogene (EEDEN), 2000-2004 (vice chair) See <http://www.esf.org/eeden/>
- International Union of Biological Sciences (IUBS), National Committee of Finland, 1998- (vice chair 2001- 2002, chair 2004-)