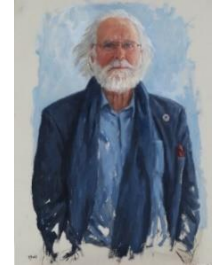


Nils Chr. Stenseth, Dr. philos.



(Painted by Tore Juell)

Professor of Ecology and Evolution & Strategic Adviser to the Faculty of Mathematics and Natural Sciences, University of Oslo, Norway

Past President of Norwegian Academy of Science and Letters;

Foreign member of US, French, Russian, Chinese Academy of Science, and other academies

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(Updated December 2023)

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Areas of focus:

- Evolutionary biology
- Ecology (population biology)
- Theoretical biology (ecology and evolution)
- Statistical modelling of time-space data (in particular time-series modelling)
- Mathematical modelling
- Effects of climate variation on ecological and evolutionary processes
- Disease modelling of ecological and evolutionary dynamics of plague, dengue, hantavirus, COVID-19 & other zoonotic/infectious diseases

Essentially all my work is based upon population ecology – being applied to a broad spectrum of ecological systems and questions. The issues include terrestrial (population fluctuations and small rodents – including lemmings – and hare and lynx), marine (e.g., cod) and freshwater (e.g., pike) systems, as well as zoonotic disease systems (specifically plague) – and also includes bringing ecological thinking into evolutionary biology.

Education

Dr. philos. University of Oslo, Norway (Ecology & Evolutionary Biology). 1978

Thesis title: “**Theoretical studies on fluctuating populations**” (thesis defended on 04.03.1978)

Cand. Mag. University of Oslo, Norway (Biology, Zoology, Mathematics, Statistics, Computer Science, Chemistry) 1972

Current and previous positions include

Distinguished Visiting Professor at Vanke School of Public Health, Tsinghua University, Beijing	2024–
Founding Deputy Chair of Centre for Pandemics and One-Health Research (P1H), Faculty of Medicine, Univ. of Oslo	2022–
Strategic Advisor to the Dean , Faculty of Mathematics and Natural Sciences, Univ. of Oslo	2018–
Professor of Marine Biology , University of Agder, Kristiansand, Norway	2015–2023
Founding Chair of the Centre for Ecological and Evolutionary Synthesis (CEES), Univ. of Oslo ¹	2007–2018
Professor of Ecology and Evolution, University of Oslo	2004–
Professor of Zoology, University of Oslo	1990–2003
Founding Director of Centre for Development and the Environment (SUM), Univ. of Oslo	1990–2001
Professor of Population Dynamics, University of Oslo (until 1985 as Assoc. Prof)	1980–1989
Associate Professor of Ecology, University of Lund, Sweden	1979–1982
Research Associate , University of Oslo	1975–1978

Scientific roles and responsibilities include

- **Member** of the Lancet-University of Oslo Commission on the political determinants of health: global governance for health in a time of polycrisis (2023–)
- **Member** of the CEPI (Coalition for Epidemic Preparedness Innovations) group on “Preparedness and Surge Financing – Phase 2 Technical Expert Group (2023–)

¹ The Centre was awarded status as national Centre of Excellence (CoE) 2007–2017 by the Research Council of Norway (www.mn.uio.no/cees/english)

- **Contributor** to Ukraine Global Faculty (2024–)
- **Chair** of The Board of Norwegian Marine University Consortium (since 2022)
- **Chair** of the committee for evaluating the development of a Pandemic Centre at UiO, Oslo, Norway (2021–2023)
- **Honorary Advisor** of the plague research group at Vanke School of Publish Health (VSPH), Tsinghua University, Beijing, China (since 2021)
- **Science Ambassador** of the Alliance of International Science Organizations-ANSO (since 2021)
- Advisor to the Eötvös Loránd Research Network of the Hungarian Academy of Sciences (2019–23)
- **Lead author** of the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), Working Group II, Chapter 1 (2018–2022)
- **Advisor to the Dean** of Mathematics and Natural Science at the University of Oslo (since 2018)
- **Chair**, Milner Centre for Evolution Advisory Bord, University of Bath, UK (2017–2022)
- **Member** of the External Advisory Board of the Centre for Ecological Research, Hungary (since 2016)
- **Member** of the Scientific Council of the European Research Council (ERC) (2014–17) (also having served on LS8 panels (both StG and AdG))
- **Scientific Advisor** to the National Centre for Disease Control and Public Health, Georgia (2014–19)
- **Founding Member** of the Heidelberg Forum for Computer Science and Mathematics (since 2014)
- **Founding Chair** of *NCoE NorMER* (www.normer.uio.no): a Nordic centre for research on marine ecosystems and resources under climate change
- **Founding Chair** of *EcoClim-NCoE*: a Nordic centre for the study of the dynamics of ecological systems under the influence of climatic variation (Universities of Oslo, Lund and Helsinki)
- **Corresponding PI** of *SUSTAIN* (Sustainable management of renewable resources in a changing environment); (www.sustain.uio.no)
- **Mentorship**: Trained 50+ PhDs and 65+ postdocs, many of which have become very successful scientists
- **Creation of effective networks for young researchers** such as *CEES*, *NorMER* (Nordic Centre for Research on Marine Ecosystems & Resources under Climate Change) and *SUSTAIN* (Sustainable management of renewable resources in a changing environment)
- **Founding board member** (2014) of the Norwegian internet encyclopaedia (Nettleksikon; later Store Norske Leksikon)
- **Key roles in international scientific organisations**: (1) **President** of the Fourth European Mammal Congress (1999-2003); (2) **President** of the International Theriological/Mammalogical Congresses (ITC/IMC) (1997-2006); (3) **Member** of the Executive Committee of International Union of Biology Science, IUBS (since 2007, **President** 2012–14) and (4) **Member** of the board of “The Sven Lovén Centre of Marine Sciences”, Gothenburg University (2008-2015)
- **Editorial work** for several journals, including: **Senior Editor**, *Proceedings of the Royal Society of London; Series B* (UK; 2005-2008; **Editor-in-Chief**, *Climate Research* (Germany; since 2005); and **Editorial Board Member/Editor**, *Proceedings of the National Academy of Science* (since 2017)

Academic awards include

2023	Awarded the Grand Medal Prince Albert 1st , Prince of Monaco - section Science – awarded by HSH Prince Albert II of Monaco
2023	Awarded the Gunnerus Medal (Gunnerusmedaljen) by The Royal Norwegian Society of Sciences and Letters (Det Kongelige Norske Videnskabers Selskab (DKNVS))
2022	Awarded Diploma from the Saint Augustine order for promotion of Gregor Johann Mendel
2020	Awarded the Chinese national award for International Science and Technology Cooperation – awarded by President Xi Jinping
2019	Awarded the Chinese Premier's/Prime Minister's Friendship Award, China (September 2019) – awarded by Li Keqiang
2019	Awarded the ECI prize in marine sciences , International Ecology Institute, Otto Kinne Foundation, Germany
2019	Awarded the Chinese Academy of Science's medal for International Scientific Cooperation , China
2012	Awarded the Research Council of Norway's Prize for Excellence in Communication of Science
2011	Awarded the University of Oslo's Inspiration Prize within the field of Marine Biology
2010	Awarded the Bonnevie Prize for carrying out excellent work within the field of biology and to promote public understanding about science through targeted and focused communications
2000	Awarded the Research Council of Norway's Prize for Outstanding Research
1996	Awarded the University of Oslo's Prize for Outstanding Performance in Science

1984 Awarded the **Nansen Medal for Outstanding Research** for work on Evolutionary Biology

Academic honors include

2024 Named **Distinguished Visiting Professor** at Vanke School of Public Health, Tsinghua University, Beijing

2023 Elected **Fellow of The International Science Council (ISC)**

2023 Elected **Foreign Member of the Chinese Academy of Sciences (CAS)**

2023 Elected **Honorary Member of the American Society of Mammalogists**

2023 Elected **Member of the European Molecular Biology Organization (EMBO)**

2023 Elected **International Honorary Member of the American Academy of Arts and Sciences**, Cambridge, Massachusetts, US

2021–2025 Elected **President of the International Society of Zoological Sciences (ISZS)**

2021 Elected **Foreign Member of Royal Society of Canada**

2019 Elected **Member of the Ethiopian Academy of Sciences**

2019 Elected **Honorary Member of the Hungarian Academy**

2019 Named **Honorary Professor at Beijing Normal University, China**

2018 Elected **Member of The World Academy of Sciences (TWAS)**

2018 Elected **Honorary Doctor (doctor honoris causa) at Åbo Akademi University, Finland**

2018 Named **Honorary Professor at Tsinghua University, China**

2016 Elected **Foreign Member of the Russian Academy of Science**

2015 Elected **International Member of the National Academy of Sciences, Washington, US**

2015 Elected **Member of Agder Academy of Science and Letters, Norway**

2013 Named **Professor II (honorary adjunct), Addis Ababa University, Ethiopia**

2011 Elected **Honorary Doctor (doctor honoris causa) at the École Normale Supérieure, Lyon, France**

2011 Named **Chevalier (Knight) in the French National Order of the Legion of Honour, France**

2011 Elected **Member of the Executive Committee of the International Society of Zoological Sciences (ISZS)**

2007–2012 Elected **Member of the Executive Committee of the International Union of Biological Science (IUBS)**

2008–2014 Elected **Vice-president/President** (alternating years) of **the Norwegian Academy of Science and Letters (DNVA)** (Vice-president: 2008–2009, 2010–2011 & 2013–2014; President: 2009–2010, 2011–2012 & 2013–2014)

2012–2014 Elected **President of the International Union of Biological Science (IUBS)**

2007 Elected **Member of the Swedish Royal Physiographic Society, Lund, Sweden**

2006 Elected **Member of the Finnish Society of Sciences and Letters**

2006 Named **Einstein Professor of the Chinese Academy of Science, China**

2005 Elected **Fellow of Academia Europaea**

2005 Elected **Fellow of the French Académie des Sciences**

2001 Elected **Honorary Doctor (doctor honoris causa) at the University of Antwerpen, Belgium**

2002 Elected **Member of the Royal Norwegian Society of Science and Letters**

1999–2003 Elected **President of the Forth European Mammal Congress**

1997–2006 Elected **President of the International Theriological/Mammalogical Congresses (ITC/IMC)**

1996–1997 Elected **Fellow of the Centre for Advanced Study** (and appointed as its Chair) at the Norwegian Academy of Science and Letters (DNVA) for studying the “lemming problem”

1986 Elected **Member of the Norwegian Academy of Science and Letters (DNVA)**

Recent research grants include

2024–2026 “A Digital Twin for Vaccination Strategies at Geographic Scales” (co-PI; UiO internal funding: **2 2000 NOK**)

2024–2028 PEPR “Deciphering the environmental, biological and societal factors driving the risk of plague re-emergence in France” (Partner; ANRS: **2 737 534€**)

2024–2030 Synergy-Plague “Reconstructing the environmental, biological, and societal drivers of plague outbreaks in Eurasia between 1300 and 1900 CE” (Corresponding PI; ERC-Synergy: **10 mill €**)

2022–2028 “Soil survival and re-emergence: the continued threat of plague” (Partner; Natural Environment Research Council, UK: **17 mill NOK**)

2021–2024 NORDEMICS: “Pathogens, Pandemics and the Development of Nordic Societies” (co-PI; Nordforsk: **15 mill NOK**)

2020–2022 COVID-19 Seasonality: “The effect of environmental variation on the spatio-temporal dynamics at national, regional and global scales” (PI; Research Council of Norway: **5 mill NOK**)

- 2019–2023 “Strengthening Education and Research in Conservation biology: a collaboration between Addis Ababa University, Ethiopia and the University of Oslo, Norway” (PI; Norwegian Agency for Cooperation and Quality Enhancement in Higher Education: **4.9 mill NOK**)
- 2017–2020 Micro-Macro Evolution: “Drivers of evolutionary change: understanding stasis and non-stasis through integration of micro- and macroevolution” (PI; Research Council of Norway: **10 mill NOK**)
- 2015–2020 SUSTAIN: “Sustainable management of renewable resources in a changing environment: an integrated approach” (PI; Research Council of Norway: **50 mill NOK**)
- 2011–2015 NorMER: “Nordic Centre for Research on Marine Ecosystems and Resources under Climate Change” (PI; Nordforsk – Nordic Research Council: **26 mill NOK**)
- 2007–2017 CEES: “Centre for Ecological and Evolutionary Synthesis” (PI; Research Council of Norway: **100 mill NOK**)

Organisation of scientific meetings include

- 26.09.2022 I was the main organiser and chair of “Plague in the Nordic countries” at the Norwegian Academy of Science and Letters, Oslo, Norway
- 28–29.06.22 I was the main organiser and chair of “Determinants of Rates of Origination, Extinction and Evolution at the Norwegian Academy of Science and Letter, Oslo, Norway
- 30.07.2019 I was the main organiser and chair of “A Century of Unifying Biology” at The Norwegian Academy of Science and Letters, Oslo, Norway (organised as part of the 100th anniversary of the International Union of Biological Science (IUBS) held in Oslo 30.07.19–02.08.
- 19–20.11.14 I was the main organiser and chair of “The Past Plague Pandemics (Justinian, Black Death, Third) in Light of Modern Molecular Life Science Insights”: a two-day meeting at The Norwegian Academy of Science and Letters, Oslo, Norway
- 09–10.11.05 I was the main organiser and chair of “Plague: Bacteriology, Evolution, Ecology, Epidemiology and its impact on human history”: a two-day meeting at The Norwegian Academy of Science and Letters, Oslo, Norway

Publication summary and selected recent and older publications showing the breath of competence

Summary as per November 2023: more than 870 publications in total, including Science (17, of which 6 articles and reviews and 7 book reviews), Nature (21, of which 11 articles and 6 editorial materials). Citations (Google Scholar, March 2024); h-index=132: a total of more than 69 500 citations; more than 22 800 citations since 2019.

Publications include

(Full list of publications together with citation-numbers are available at <https://scholar.google.com>)

- Some recent publications:
<https://www.mn.uio.no/english/people/adm/fac/research/nilsst/publications-recently-published/>
- Some publications on the integration of ecology and evolution (including coevolution and biotic interactions within multispecies communities):
<https://www.mn.uio.no/english/people/adm/fac/research/nilsst/publications-by-topic/integration-of-ecology-and-evolution.html>
- Some publications on how climate variation affect ecological and evolutionary patterns and processes:
<https://www.mn.uio.no/english/people/adm/fac/research/nilsst/publications-by-topic/climate-variation.html>
- Some publications on zoonotic and/or vector-borne diseases (such as plague):
<https://www.mn.uio.no/english/people/adm/fac/research/nilsst/publications-by-topic/zoonotic-diseases-and-or-infections.html>
- Some publications on COVID-19:
<https://www.mn.uio.no/english/people/adm/fac/research/nilsst/publications-by-topic/covid-19.html>
- Some publications within the field of marine biology:
<https://www.mn.uio.no/english/people/adm/fac/research/nilsst/publications-by-topic/marine-biology.html>
- Some publications on lemmings and other mammals:
<https://www.mn.uio.no/english/people/adm/fac/research/nilsst/publications-by-topic/lemmings-and-other-mammals.html>

Outreach to the general public

I do a lot of outreach including newspapers articles, general lectures and more non-standard type of communication, including working together with stand-up comedian, Dag Sørås, on the communication about the plague (see <https://tv.nrk.no/serie/latterlig-smart/2018/DMTV23600418/avspiller>); we will do another show on plague and corona this fall on the Norwegian Broadcasting Company (NRK). I have also recently done a podcast on plague and corona. I have gotten several prizes (e.g., the Research Council of Norway Communication Prize and the Bonnevie Prize for communicating biological knowledge to the public) for my outreach work.

Major contributions to the early careers of excellent researchers

Throughout my career I have been involved in creating effective training environments and networks for young researchers. For the past 10 years this includes CEES (“Centre for Ecological and Evolutionary Synthesis”: www.mn.uio.no/cees), *NorMER* (“Nordic Centre for Research on Marine Ecosystems and Resources under Climate Change”: www.normer.uio.no), and *SUSTAIN* (“Sustainable management of renewable resources in a changing environment”: www.sustain.uio.no). Altogether I have trained 50+ Ph.D. students and 65+ post docs, many of which have gone on to become very successful scientists. For an extensive list of names, see: <http://www.mn.uio.no/cees/english/people/chair/nilsst/progeny.html>.

Invited presentations include

- Invited lecture 05.12.23 at the the International Forum for Sustainable Vector Management, China, CDC, Haikou City, Hainan Province, China “How to avoid a local epidemic becoming a global pandemic? ... and how to distribute vaccine doses when it has become a global pandemic?”
- Invited lecture 04.11.23 at the Third World Health Forum “Preparing the World for the Next Pandemic”, Vanke School of Public Health, Tsinghua University, Beijing “How to avoid a local epidemic becoming a global pandemic? ... and how to distribute vaccine doses when it has become a global pandemic?”
- Invited lecture 26.06.23 at the First International Symposium of Wildlife Diseases Research Network (WDRN), Haikou City, Hainan Province, China: “Some unsettled ecological and evolutionary issues regarding plague (*Yersinia pestis*) - with some tentative answers”
- Invited lecture 21.05.23 at Vanke School of Public Health, Tsinghua University, Beijing: “The ecology of plague: a disease of today that changed our history”
- Invited Key-note lecture 10.03.23 at the 34th IUBS General Assembly, 10-12.03.23, Faculty of Science & Engineering, Chuo University, Bunkyo, Tokyo, Japan: “Bringing Genetics, Ecology, Evolution and Sustainability together in to the Unified Biology”
- Invited opening speech at the Mendel Genetics Conference in Brno, The Czech Republic (20–23July); a speech based upon the introductory paper to “Gregor Johann Mendel and Modern Evolutionary Biology” published as a Special Feature collection in *PNAS* (pnas.org/topic/552).
- Invited lecture 24.07.21 at the Augustinian Abby, Brno Monastery, Czech Republic (“Gregor Mendel’s monastery”) during the 2021 Mendel Festival: “From Gregor Mendel and Charles Darwin till today’s Genomics: the History of Modern Biology”
- Invited lecture 01.12.20 in connection with the 300th anniversary of 1720-plague outbreak in Marseille at Colloque de l’IHU, Marseille
- Invited as panel participant 17.10.20 at the Moscow Science Festival “Using mathematics and computer science in evolutionary biology: a discussion between an evolutionary biologist (Nils Chr. Stenseth), a chemist (Artem Oganov) and a physicist (Anders Malthe-Sørenssen)”.
- Invited lecture 13.10.19 at the Moscow Science Festival, Lomonosov Moscow State University: “The ecology of macroevolution”.
- Invited lecture 05.11.18 at the “The First General Assembly of the Alliance of International Science Organizations (ANSO) in the Belt and Road Region” & “The Second” International Science Forum of Scientific Organizations on the Belt and Road Initiative: “Ecological changes in response to climate changes in the Arctic”.
- Invited lecture at the “2018 World Life Science Conference”, Beijing on 27.10.18, Session on “Biological Consequences of Global Change”: “Ecological and Evolutionary dynamics in marine systems under anthropogenic influence”.
- Invited lecture 16.11.2016 at the Joint Meeting of the 22nd International Congress of Zoology & the 87th Meeting of the Zoological Society of Japan about “New Waves of Zoological Science in the 21st Century”, Okinawa, Japan: “Ecosystem dynamics, fishery and climate change: bringing Darwinian evolution, Eltonian population dynamics and genomics together into a united biology”
- Invited lecture 26.11.15 at Royal Society of Canada’s meeting on Canadian Marine Biodiversity: Resources, Opportunities, Responsibilities (Victoria, British Colombia, Canada): “Ecological and Evolutionary dynamics in marine systems under anthropogenic influence”
- Invited lecture 13.10.15 at University of Groningen: “Medieval plague pandemics in Europe: Repeated climate-driven introductions from Central Asia”
- Invited lecture 10.10.15 at the Moscow Science Festival, Lomonosov Moscow State University: “Climate change and impact on emerging infectious diseases Plague as an example”

- Invited lecture 22.05.15 at “Disease and Global history”, University of Oxford: ”The climatic pulse of Asia: the Black Death and successive plague reintroductions into Europe” (Stenseth & Schmid)
- Invited lecture 6.11.14 at the 74th Annual Meeting of the Society of Vertebrate Paleontology, Germany: “Red Queen and Court Jester: biotic and abiotic interactions in ecology and evolution”
- Invited lecture 12.10.14 at Moscow Science Festival “Coevolution in multispecies communities”
- Invited lecture 29.08.14 at World Science Week, New Zealand: “Pandemics and climate change”
- Invited lecture (the Ronald Fisher Lecture) 21.07.14 at Rothamsted Research: “Coevolution in multispecies communities: a Red Queen Perspective”
- Invited plenary speaker 24.06.13 at The *Yersinia*-11 meeting in Suzhou, China: “The interplay between ecology and evolution in host-vector-pathogen systems: *Yersinia pestis* as an example”
- Lectured 11.01.13 at the annual dinner of Ministers of Norw. Gov. (Oslo): “Knowledge beats it all”
- Delivered the 2011 Heinz Hafner Lecture 28.11.2011 in Tour du Valat: “Global climate change and ecological as well as evolutionary consequences”
- Invited keynote speech 02.06.2011 at the European Conference on Ecological Modelling 2011, Riva del Garda, Italy: “The hare and the lynx in the food web of the boreal forest of Canada”
- Delivered the annual Darwin lecture at the University of Glasgow (UK) on 10.02.2010: “Structuring of cod populations: a combined ecological and population genetics study”
- Delivered the Linacre lecture in Oxford (UK) 28.01.2010: “Plague: past, present and future”
- Invited plenary at the “Symposium on the Ecology of Plague and its Effects on Wildlife – the Effect of Climate Variation” (CSU, Fort Collins, 04-06.11.2008)
- Invited plenary at “New and re-emerging Diseases, population and Climate”, COSMOCAIXA (Barcelona, 15-17.11.2006): “Climate change and plague epidemics”
- Invited speaker at the Joint Statistical Meeting (Minneapolis, 07-10.08.2005). “Recent Advances of Statistical Methodologies for Assessing Environmental Effects on Ecological Systems”