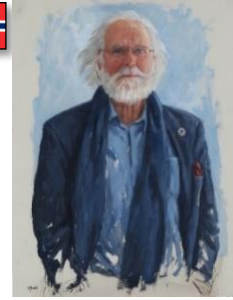


**Nils Chr. Stenseth, Dr. philos.**  
**Professor of Ecology and Evolution, University of Oslo, Norway**  
*Past President, Norwegian Academy of Science and Letters;*  
*Foreign member of US, French, Russian Academy of Science, and others*  
[www.mn.uio.no/cees/stenseth](http://www.mn.uio.no/cees/stenseth)



### Areas of focus:

- Evolutionary biology
- Theoretical biology (ecology and evolution)
- Statistical modelling of time-space data (specifically time-series data)
- Effects of climate variation on ecological and evolutionary processes
- Disease modelling e.g. of plague (past and present), dengue, hanta and COVID-19

### Positions Held includes

Professor & Strategic Advisor at the Faculty of Mathematics and Natural Sciences, Univ. of Oslo	2018-
Founding Chair of the Centre for Ecological and Evolutionary Synthesis (CEES), Univ. of Oslo	2007-2018
Research Professor of Ecology and Evolution, University of Oslo	2004-
Professor of Zoology, University of Oslo	1990-2003
Professor of Population Dynamics, University of Oslo (until 1985 as Ass. Prof)	1980-1989
Associate Professor of Ecology, University of Lund, Sweden	1979-1982
Research Associate, University of Oslo	1975-1978

### Education

Dr. philos. University of Oslo, Norway. Thesis title; “Theoretical studies on fluctuating populations” (thesis defended on 04.03.1978)	1978
Cand. Mag. University of Oslo, Norway (Biology, Zoology, Mathematics, Statistics, Computer Science, Chemistry)	1972

### Scientific Roles and Responsibilities includes

- Advisor to the Eötvös Loránd Research Network of the Hungarian Academy of Sciences (since 2019)
- Advisor to the Dean of Mathematics and Natural Science at the University of Oslo (since 2018)
- Member of the Scientific Council of the European Research Council (ERC) (2014-17)
- Scientific Advisor to the National Center for Disease Control and Public Health, Georgia (since 2014)
- Founding Chair, Centre for Ecological and Evolutionary Synthesis, University of Oslo (CEES was awarded status as national Centre of Excellence (CoE) 2007-2017 by the Research Council of Norway)
- Founding Chair of NCoE NorMER ([www.normer.org](http://www.normer.org)): 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)
- 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)
- 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: Associated Editor/Editor of *Proceedings of the Royal Society of London; Series B* (UK; 2005-2008; Editor-in-Chief of *Climate Research* (Germany; since 2005); and Editorial Board Member of *Proceedings of the National Academy of Science (PNAS)* (since 2017).
- Founding Director of Centre for Development and the Environment (SUM) at the University of Oslo

### Academic Honours includes

- 2020 Chinese national award for International Science and Technology Cooperation – awarded by President Xi Jinping
- 2019 Elected member of the Ethiopian Academy of Sciences, Ethiopia
- 2019 The Chinese Premier's/Prime Minister's (Li Keqiang) Friendship Award, China
- 2019 Awarded the 2019 ECI prize in marine sciences, Germany
- 2019 Honorary member of the Hungarian Academy, Hungary
- 2019 Honorary Professor of Beijing Normal University, China
- 2019 The Chinese Academy of Science's medal for International Scientific Cooperation, China
- 2018 Elected member of The World Academy of Sciences (TWAS), headquarter in Trieste, Italy
- 2018 Honorary Professor of Tsinghua University, China
- 2018 Honorary Doctor of Åbo Akademi University, Finland
- 2016 Foreign member of the Russian Academy of Science, Russia
- 2015 Foreign member of the National Academy of Sciences, Washington, US
- 2013- Professor II (honorary adjunct; unpaid), Addis Ababa University, Ethiopia
- 2012- Professor II, University of Agder, Norway
- 2012 The Research Council of Norway's Excellence in Communication of Science Award, Norway
- 2011 Chevalier (Knight) in the French National Order of the Legion of Honour, France
- 2011 Honorary Doctor (Doctor Honoris Causa) of the École Normale Supérieure, Lyon, France
- 2008-2014 Elected Vice-president/President (alternating years) of the Norwegian Academy of Science and Letters, DNVA, Norway
- 2006 Named Einstein Professor of the Chinese Academy of Science, China
- 2005 Fellow of the French Académie des Sciences, France
- 2005 Fellow of Academia Europaea, headquarter in London, UK
- 2001 Honorary Doctor (doctor honoris causa) of the University of Antwerpen, Belgium
- 1986 Elected member of the Norwegian Academy of Science and Letters, DNVA, Norway

### Recent Research Grants include

- 2020–22: COVID-19 Seasonality: “The effect of environmental variation on the spatio-temporal dynamics at national, regional and global scales” (Research Council of Norway: **5 mill NOK**)
- 2017-20 Micro-Macro Evolution: “Drivers of evolutionary change: understanding stasis and non-stasis through integration of micro- and macroevolution” (Research Council of Norway: **10 mill NOK**)
- 2015–2020 SUSTAIN: “Sustainable management of renewable resources in a changing environment: an integrated approach” (Research Council of Norway: **50 mill NOK**)

I am also involved in several other projects as member/Co-PI.

### COVID-19 Response Think Tank

I have initiated an international Think Tank with members from China, Europe, North America and Africa) with the aim of better understanding the public health and societal effects of non-pharmaceutical interventions (NPI) implemented across the entire world. Focus is on comparing the effects of the interventions between and across states (US), countries (Europe) and provinces (China).

### 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 prize (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](http://www.mn.uio.no/cees)), *NorMER* (“Nordic Centre for Research on Marine Ecosystems and Resources under Climate Change”: [www.normer.uio.no](http://www.normer.uio.no)), and *SUSTAIN* (“Sustainable management of renewable resources in a changing environment”: [www.sustain.uio.no](http://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>.

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

Summary as per primo June 2020: 789 total, including *Science* (16), *Nature* (20), *PNAS* (65); citations: >27000 citations, *H-index* 84 (*Web of Science*); *H-index* 112 and > 49000 citations (*Google Scholar*).

Full list of publications together with citation-numbers are available at

[https://scholar.google.com/citations?hl=no&user=GILt45oAAAAJ&view\\_op=list\\_works&gmla=AJsN-F44aOgYjG1wkIMqQVilCQCxRM3y9sJE9rsFITReO1Y2DXzB4MlNTfulmoQWbVIQKJMX6pxt11SVZxnAZfayYT9LQywwnIOfqLMiCbj7fL1u1b-AwCU](https://scholar.google.com/citations?hl=no&user=GILt45oAAAAJ&view_op=list_works&gmla=AJsN-F44aOgYjG1wkIMqQVilCQCxRM3y9sJE9rsFITReO1Y2DXzB4MlNTfulmoQWbVIQKJMX6pxt11SVZxnAZfayYT9LQywwnIOfqLMiCbj7fL1u1b-AwCU)

- ▶ Nordbotten JM, Bokma F, Hermansen JS, **Stenseth NC**. 2020 The dynamics of trait variance in multi-species communities. *R. Soc. Open Sci.* 7: 200321. <http://dx.doi.org/10.1098/rsos.200321>
- ▶ Cui, Y., Schmid, B. V., Cao, H., Dai, X., Du, Z., Easterday, W. R., Fang H, Guo C, Huang S, Liu W, Qi Z, Song Y, Tian H, Wang M, Wu Y, Xu B, Yang C, Yang J, Yang X, Zhang Q, Jakobsen Ks, Zhang Y, **Stenseth NC**, Yang, R. (2020). Evolutionary selection of biofilm-mediated extended phenotypes in *Yersinia pestis* in response to a fluctuating environment. *Nature Communications*, 11(1). doi:10.1038/s41467-019-14099-w
- ▶ Fedorov, V. B., Trucchi, E., Goropashnaya, A. V., Waltari, E., Whidden, S. E., & **Stenseth, N. C.** 2020. Impact of past climate warming on genomic diversity and demographic history of collared lemmings across the Eurasian Arctic. *Proceedings of the National Academy of Sciences of the United States of America*, 117(6), 3026-3033. doi:10.1073/pnas.1913596117
- ▶ Wortel, M. T., Peters, H., Bonachela, J. A., & **Stenseth, N. C.** 2020. Continual evolution through coupled fast and slow feedbacks. *Proceedings of the National Academy of Sciences of the United States of America*, 117(8), 4234-4242. doi:10.1073/pnas.1916345117
- ▶ Namouchi A, Guellil M, Kersten O, Hansch S, Ottoni C, Schmid BV, Pacciani E, Quaglia L, Vermunt M, Bauer EL, Derrick M, Jensen AO, Kacki S, Cohn SK, Jr., **Stenseth N.C.**, Bramanti B. 2019. Integrative approach using *Yersinia pestis* genomes to revisit the historical landscape of plague during the Medieval Period (vol 115, pg E11790, 2018). *Proceedings of the National Academy of Sciences of the United States of America*, 116, 338-338
- ▶ Bramanti, B., Dean, K.R., Walløe, L. & **Stenseth, N.C.** 2019. The Third Plague Pandemic in Europe. *Proceedings of the Royal Society B-Biological Sciences*, 286
- ▶ Li R, Xu L, Bjornstad ON, Liu K, Song T, Chen A, Xu B, Liu Q, **Stenseth NC** 2019 Climate-driven variation in mosquito density predicts the spatiotemporal dynamics of dengue. *Proceedings of the National Academy of Sciences of the United States of America*, 116(9), 3624-3629
- ▶ Dean KR, Krauer F, Walloe L, Lingjaerde OC, Bramanti B, **Stenseth NC**, Schmid BV: Human ectoparasites and the spread of plague in Europe during the Second Pandemic. *Proceedings of the National Academy of Sciences of the United States of America* 2018, 115(6):1304-1309
- ▶ Hermansen JS, Starrfelt J, Voje KJ, **Stenseth NC**: Macroevolutionary consequences of sexual conflict. *Biology letters* 2018, 14(6): 1-4
- ▶ Zliobaite I, Fortelius M, **Stenseth NC**: Reconciling taxon senescence with the Red Queen's hypothesis. *Nature* 2017, 552(7683):92
- ▶ Viranta S, Atickem A, Werdelin L, **Stenseth NC** Rediscovering a forgotten canid species. 2017, *BMC Zoology* 10.1186/s40850-017-0015-0
- ▶ Nordbotten JM, **Stenseth NC**. 2016 Which ecological conditions favor continued evolution in the absence of abiotic variation? The Red Queen's hypothesis revisited. *Proceedings of the National Academy of Sciences of the United States of America* 113, 1847–1852. (doi:10.1073/pnas.1525395113)
- ▶ Voje KL, Holen OH, Liow LH, **Stenseth NC**: The role of biotic forces in driving macroevolution: beyond the Red Queen. *Proceedings of the Royal Society B-Biological Sciences* 2015, 282(1808)
- ▶ Trosvik P, de Muinck EJ, **Stenseth NC**: Biotic interactions and temporal dynamics of the human gastrointestinal microbiota. *Isme Journal* 2015, 9(3):533-541
- ▶ Voje KL, Nolen OH, Liow LH, **Stenseth NC**: The role of biotic forces in driving macroevolution: beyond the Red Queen. *Proceedings of the Royal Society B-Biological Sciences* 2015, 282(1808)
- ▶ Schmid BV, Büntgen U, Easterday WR, Ginzler C, Walløe L, Bramanti B, **Stenseth NC**. Climate-driven introduction of the Black Death and successive plague reintroductions into Europe. *Proceedings of the National Academy of Sciences of the United States of America* 2015 Mar 10;112(10):3020-5
- ▶ Samia NI, Kausrud KL, Heesterbeek H, Ageyev V, Begon M, Chan KS, **Stenseth NC**. Dynamics of the plague-wildlife-human system in Central Asia are controlled by two epidemiological thresholds. *Proceedings of the National Academy of Sciences of the United States of America* 2011;30;108(35):14527-32

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Papers presently in review or in press include:

- “The ecology of the Corona epidemics when  $R_0$  is below one: dynamics within homogeneous regions and transmission from outside” authored by Engen S, Tian H, Yang R, Bjørnstad ON, Whittington JD, **Stenseth NC** (corr-auth) (in review in *Proceedings of the National Academy of Sciences of the United States of America*).
- “Suppression of future waves of COVID-19: Global pandemic demands joint interventions” authored by Li R, Chen B, Zhang T, Ren Z, Song Y, Xiao Y, Hou L, ....**Stenseth NC** (corr-auth), Guan D (co-corr-auth), Gong P (co-corr-auth) & Xu B (co-corr-auth) (accepted for publication in *Proceedings of the National Academy of Sciences of the United States of America*)
- “Attuning to a changing ocean” authored by **Stenseth NC** (corr-auth), Payne MR, Bonsdorff E, Dankel DJ, Durant JM, Anderson ØG, Armstrong CW, Blenckner T, Brakstad AD, Dupont S, Eikeset AM, Goksøyr A, Jónsson S, Kuparinen A, Våge K, Österblom H, Paasche Ø (accepted for publication in *Proceedings of the National Academy of Sciences of the United States of America* (will appear mid August 2020))