Name: Jussi Tuomas Eronen

#### **Contact information:**

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Website: http://www.iki.fi/jussie

## **Academic Degrees**

PhD, Paleontology, University of Helsinki, Finland, 20.10.2006

MSc, University of Helsinki, 2003

Title of Docent: Paleobiology, University of Helsinki, 2008

### Language skills

Finnish (native), English (fluent), Swedish (fluent reading, functional speaking), German (functional reading, basic speaking), French (basics)



# **Current position**

Associate Professor of Sustainability Science, Ecosystems and Environment Research Programme & Helsinki Institute of Sustainability Science (HELSUS), Faculty of Biological and Environmental Sciences, University of Helsinki, Finland 1.6.2018 ->

## Previous work experience

1.1.2016-31.5.2018: Researcher, BIOS Research Unit, Helsinki, Finland (http://bios.fi)

1.1.2014-31.12.2015: Marie Curie Fellow at Biodiversität und Klima Forschungszentrum (BiK-F) and Senckenberg Forschungsinstitut und Naturmuseum, Frankfurt am Main, Germany (Funding from EU FP7)

1.1.2011-31.12.2013: University of Helsinki Post-Doctoral Researcher, Department of Geosciences & Geography (Funding from UH to J.T. Eronen)

1.9.2011-30.6.2012: Alexander von Humboldt research fellow at Biodiversität und Klima Forschungszentrum (BiK-F), Frankfurt am Main, Germany, (Funding from Alexander von Humboldt Foundation to J.T. Eronen).

2008-2010: Researcher & Scientific coordinator, Dept. of Geosciences & Geography and Dept. of Computer Science, Univ. Helsinki, Finland (Funding from prof. H. Mannila)

2007-2008: Post-doctoral Researcher, Dept. of Geology, Univ. Helsinki, Finland (Personal grant from Kone Foundation)

2006-2007: Visiting post-doctoral fellow, Senckenberg Museum of Natural History, Frankfurt am Main, Germany (personal grant, Host: Prof. V. Mosbrugger)

2003-2006: PhD student, Dept. of Geology, Univ. Helsinki, Finland (Funding from prof. M. Fortelius)

#### **Research funding**

## Funding, personal

Year & €	Name
2005 (25.000)	Helsingin sanomain 100-vuotissäätiö grant for working abroad
2006 (21.600)	Post-doctoral grant, Kone foundation
2007 (22.800)	Post-doctoral grant, Kone foundation
2011 (~200.000)	University of Helsinki Post-Doctoral project (2011-2013) (salary for

myself for three years + 3000 Eur/year)

2011 (~50.000) Research Fellowship, Alexander von Humboldt foundation (For 12

months)

2012 (~170 000) Marie Curie Intra-European Fellowship (24 months)

+ ca. 20.000 Eur annually for iCCB program since 2012

+ numerous small grants (less than 5000 Eur/each)

# Funding, other research grants

2003-2005 Academy of Finland (Eurasian Land Mammals in Deep Time: Environment, Climate and Evolutionary Dynamics, PI M. Fortelius) (member)

2004-2007 Academy of Finland (Linking developmental, computational and evolutionary biology of mammalian teeth, PI's J. Jernvall, M. Fortelius, I. Thesleff) (member)

2006-2009 Academy of Finland (Environments and Evolutionary Dynamics of Fossil and Recent Land Mammal Communities: Combining Field Work, Data Mining and Modelling Approaches, PI M. Fortelius) (member)

2007-2009 Ella and Georg Ehrnrooth Foundation: Regional climate change and mammal community evolution 15-5 million years ago (PI Mikael Fortelius, J.T Eronen as Co-PI)

2007: CoMS Project/Centre for Scientific Computation: ECHAM5/MPIOM-Simulations for the Late Miocene. (PI Mikael Fortelius, <u>J.T Eronen as Co-PI</u>)

2008-2010 Finnish Cultural Foundation. Rajat tieteenaloja yhdistävänä tekijänä (crossdisciplinary and integrative examination of boundaries in nature and society). (PI's H. Mannila, M. Fortelius & M. Löytönen, J.T. Eronen as a scientific coordinator)

2015 (287 000) Kone Foundation (Collaboration between journalists and scientist to enhance scientific communication about climate and environmental change, Eronen scientific PI 2015-2016, coordinators Paavo Järvensivu, Antti Majava)

2016 (890 000) Kone Foundation (Funding for BIOS research unit 2017-2020, Eronen scientific PI 2016-31.5.2018, coordinators Paavo Järvensivu, Antti Majava)

2018-2023 Academy of Finland Strategic Research Council. Creative adaptation to wicked socio-environmental disruptions (WISE) (Consortium leader J. Hukkinen, WP leaders T-K Lehtonen, M. Wilenius., S. Kuikka, P. Lund., Interaction coordinator: BIOS Research Unit, P. Järvensivu main responsible, J.T Eronen deputy)

## **Academic merits**

Examination of students for the doctoral degree

Member of the thesis examination committee for Sara Varela Gonzalez (18.2.2011), Universidad Autonoma de Madrid, Spain.

External reviewer for thesis of Nikoloz Tsikaridze (February 2015), University of Florence, Italy

Member of thesis steering group of Antti Majava (2016 onwards), University of Helsinki

## Positions of scientific trust and administration

Chair of the iCCB (integrative Climate Change Biology, <a href="http://iccbio.org/">http://iccbio.org/</a>) 2012-2019

Associate coordinator, Neogene of Old World database (<a href="http://www.helsinki.fi/science/now">http://www.helsinki.fi/science/now</a>, NOW) 2009-

Member of the iCCB (integrative Climate Change Biology), a program under the International Union of Biological Sciences, 2008-

Expert member of Evolution of Terrestrial Ecosystems Consortium

(See http://www.nmnh.si.edu/ete/) 2007-

Member of NECLIME (Neogene Climate Evolution in Eurasia, <a href="http://www.neclime.de">http://www.neclime.de</a>) 2005-Served as chief scientific coordinator for workshop/project on integrative examination of boundaries in nature and society (Finnish Cultural Foundation project 2008-2010)

Board Member, Mustarinda Association 2015-2018 (http://www.mustarinda.fi/)

Board Member, BIOS Co-op, 2016- (http://bios.fi/en/#en)

## Organisation of International Conferences

Convener, 3rd International Palaeontological Congress. London, UK, Jun 2010. Session: From Teeth to Tibet: New Techniques and Views on Mammals and Cenozoic Environmental Change (with Mikael Fortelius & Christine Janis)

Convener, international workshop on Modelling Species, Traits, and Climate, Oct 2011, Frankfurt a/Main, Germany (with David Polly)

Convener, international workshop on Traits, Niches & Climate as common coinage, Sept 2012, Birmensdorf, Switzerland (with David Polly)

Convener, international workshop "iCCB / NOW database meeting", december 2013, Helsinki, Finland

Convener, international workshop "Traits in Texas", april 2014, College Station, Texas, USA. (with Michelle Lawing and David Polly)

Convener, 74th Annual Meeting of the Society of Vertebrate Paleontology, Berlin, november 2014, symposium: Ecometrics: quantitative trait-based approaches to biotic change (with David Polly and Michelle Lawing)

Convener, international workshop "Ecosystem services, traits, and modeling", november 2014, Helsinki (with Marianne Fred)

Convener, international workshop "Integrating biology and paleobiology to enhance conservation of terrestrial ecosystems on a rapidly changing planet", 13.-17.9.2015. Berkeley, USA. (w/ Barnosky et al.)

Convener, 32nd Nordic Geological Winter Meeting, symposium: "What is the Anthropocene", (w/ Mikael Fortelius), Helsinki, Finland 13.1.2016

Convener, international workshop "Traits past, present, and future: quantitative approaches to paleontology, conservation, and climate change biology in Africa", 6.-8.3.2017, Nairobi, Kenya (w/ Jason Head, Michelle Lawing, Kyalo Manthi, Johannes Müller)

Convener, The trade-offs between forest use, climate mitigation and society 12.6.2018, symposium in 5th European Congress of Conservation Biology, Jyväskylä, Finland. (Member of organizing committee)

Co-organizer, international workshop "Pastoralism – Past, present, future", 11.-14.10.2018, Bosgård, Porvoo, Finland (w/ Daniel Burgas-Riera, Luis Cadahia-Lorenzo, Mar Cabeza)

# *Invited scientific keynote lectures (most important):*

Primate Society of Great Britain Winter Meeting: "Primate Evolution and the Environment", London, Great Britain, 8-9.12.2005

2<sup>nd</sup> International Palaeontological Congress. Invited Keynote Presentation (w/Fortelius). 17-21.6.2006, Beijing, China.

Community Earth System Models (COSMOS) General Assembly 2008, Finnish Meteorological Institute, Helsinki, Finland, 20-22.5.2008

The Role of Culture in Early Expansions of Humans: Human Expansions and Global Change in the Pleistocene: Methods and Problems, Frankfurt am Main, Germany, 16-19.11.2009

Annual NECLIME meeting:"Teleconnections between Eastern and Western Eurasia", Izmir, Turkey, 28.9.-1.10.2009.

The BiK-F seminar (Biodiversity and Climate Research Centre), Frankfurt am Main, 6.10.2011

The Role of Culture in Early Expansions of Humans: Environment and culture of early

humans in China and beyond, Frankfurt am Main, Germany, 26.2.-3.3.2012

Integrating Phylogenies, Fossils and Earth System Dynamics (sFOSSIL), Leipzig, Germany, 5.-8.5.2014

The Role of Culture in Early Expansions of Humans: EXPANSIONS, Frankfurt am Main, Germany, 13.07. – 17.07.2015

Paleontology Seminar Series, Berlin Museum für Naturkunde, Berlin, 25.4.2016

## Referee:

Editorial work: Editor for special issue in Annales Zoologici Fennici (2013/2014), Reviewer Editor Frontiers in Paleoecology

Journals (multiple times in case of \*), on average 4-5 manuscripts / year:

Paläontologische Zeitschrift\*, Climate Dynamics\*, Journal of Human Evolution\*, Annales Zoologici Fennici\*, Philosophical Transactions of the Royal Society B.\*, Proceedings of the Royal Society B\*, Global and Planetary Change\*, Methods in Ecology and Evolution\*, Palaeogeography, Palaeoclimatology, Palaeoecology (P3)\*, Geology\*, Geobios\*, Trends in Ecology and Evolution\*, Regional Environmental Change\*, Evolutionary Ecology Research\*, PloS ONE\*, Global Ecology and Biogeography, Journal of Biogeography\*, The Anthropocene Review, Quaternary Science Reviews\*, Integrative Zoology\*, Journal of Iberian Geology, Journal of Mammalian Evolution, Contributions to Zoology, Turkish Journal of Earth Sciences, Mammalia, Comptes rendus Palevolution, Animal Conservation, Reviewer for a book on Asian Neogene Mammal Biostratigraphy and Chronology (Columbia Univ. Press), Reviewer for book: Sustainability and Peaceful Coexistence for the Anthropocene. Reviewer for book: Aalto ARTS Book on art education and climate change

Funding agencies, on average 2-3 applications / year:

NWO (Netherlands Organisation for Scientific Research) (multiple times), NSF (National Science Foundation, USA) (multiple times), The Leakey Foundation USA (multiple times), Austrian Science Fund, The Royal Society (UK), Czech Science Foundation

# Full list of other scientific activities available from University of Helsinki Reseach Database Tuhat:

http://tuhat.halvi.helsinki.fi/portal/en/person/jeronen

#### Merits in teaching and pedagogical competence

pedagogical competence

University pedagogy I course 2009-2010, (10 ects), University of Helsinki

*Involvement in curriculum planning and the implementation of courses* 

Between 2003-2005 assistant teacher at UH. 2007-2014 designed and lectured multiple different courses, while being partly responsible (with the Chair of Paleontology prof. Mikael Fortelius) for the planning of teaching in the paleontology module at UH. Lecturing as part of professorship, autumn 2018->

#### Full list of teaching experience available upon request

Supervised students

PhD:

Hui Tang (defended 15.6.2013) Juha Saarinen (defended 16.12.2014) Ferhat Kaya (defended 2.5.2017) Kari Lintulaakso (defended 24.10.2018)

M.Sc.: Juha Saarinen (completed in 2009) Tuomas Jokela (completed in 2015), Teea Paasi (completed 2016)

## Scientific and societal impact of research

I have published <u>68 peer-reviewed articles</u>. In addition, I have written 13 popular scientific texts (see links below). My *H-index is 25*.

Publication metrics:

Researcher-ID (Web of Science publication metrics):

http://www.researcherid.com/rid/B-7978-2013

Full list of publications and metrics available from my homepage: <a href="http://www.mv.helsinki.fi/home/jeronen/publication">http://www.mv.helsinki.fi/home/jeronen/publication</a> list.html

Merits in science communication and expert assignments in the media (selection)

Science Forum (Tieteen päivät) 7.-11.1.2009 speaker, Session on Human Evolution (Ihmisen evolutio), title: On the environmental context of Human evolution (Ihmisen evolution ympäristökonteksti) (speaker)

- Science Forum (Tieteen päivät) 12.-16.1.2011 speaker, Session on Climate change (Miten ilmasto muuttuukaan), title: Climate changes in millions of years (Ilmastonmuutoksia miljoonien vuosien mittakaavassa) (speaker)
- "Kohti murrosten maailmaa" Ennakointipäivä osana Uusi turvallisuus –foorumia. Puhuja. Suomen Itsenäisyyden Juhlarahasto (Sitra). 26.2.2014. "Towards thresholds" Forecasting of the Future day, part of the "New Security" forum, The Finnish Innovation Fund. (speaker).
- "Onko meillä kriisinsietokykyä?" -seminaari. FinnSec turvallisuusmessut (Do we have security resilience seminar, Finnish Security Expo). 18.-20.11.2015 (speaker)
- "The condition of natural planetary life-support systems", Mustarinda incubator, Art-Science-Climate Change-Sustainability workshop, 13.-15.8.2016, Hyrynsalmi, Finland (speaker)
- Climate Science as Culture War Keskustelu HAM-galleriassa (Public discussion event at Helsinki Art Museum) 11.9.2016 (speaker)
- "11. Hetki Pohdintoja kuin elämällä olisi merkitystä", 3.9.2016, Vaasa, Helsinki (speaker) Event organiser (as part of BIOS), Researchers' statement: Finland's forest utilisation plans would accelerate climate change and reduce diversity of nature, 24.3.2017, Helsinki.
- Host (as part of BIOS), Nafeez Ahmed: Planetary boundaries: how environmental crisis can trigger political conflicts?, 27.4.2017, Helsinki (See: <a href="https://www.helsinki.fi/en/unitube/video/583d9ab5-6415-4a7f-bb8b-41f8a883990e">https://www.helsinki.fi/en/unitube/video/583d9ab5-6415-4a7f-bb8b-41f8a883990e</a>)
- "Planeetan rajat: Miten elämää voidaan suojella?", 20.4.2017, Helsinki, Tiedekulma (Public discussion event: "Planetary boundaries: how to protect life?") (speaker)
- "SPLICE Re-examining Nature", 20.5.2017, Oulu, Finland (speaker) (see: <a href="https://bioartsociety.fi/projects/splice/pages/seminar-1">https://bioartsociety.fi/projects/splice/pages/seminar-1</a>)
- Chair, Planetary state-shift and Finnish/Californian solutions, 8.6.2017, Helsinki (See: https://www.helsinki.fi/fi/unitube/video/ce61d6bb-d252-4abb-aa01-3dd5220c5865)
- "Ecological compensation Greenwashing or washing-proof green?" 10.6.2017, Turku, Finland (workshop speaker)
- "Viite summer seminar" (Green party technology & science group), (speaker) 19.-20.8.2017, Nuuksio, Espoo.
- "Visio Climate course" (Green party education organization) (speaker), 7.11-28.11.2017,

Helsinki.

SOLU art space opening (Speaker), 9.-10.11.2018

Event organiser (as part of BIOS), "Talous- ja ilmastopolitiikka vaalikaudella 2019–2023 – seminaari" (Economic and climate politics in Electoral term 2019-2023), 22.11.2018, Helsinki

Event organiser (as part of BIOS), "Tiekartta hiilineutraaliin kaukolämpöönjulkistamistilaisuus" (Roadmap to carbon neutral district heating), 11.12.2018, Helsinki

Event organiser (as part of BIOS), "WISE Seminaari: Miten Suomi varautuu viheliäisiin murroksiin?" (WISE seminar: How Finland is prepared for wicked disruptions), 16.1.2019, Tiedekulma, Helsinki.

Numerous interviews for radio and TV about past environments and climates, present climate change, Anthropocene, multi-disciplinary science work etc.

I am an author and active collaborator of the Consensus Statement from Global Scientists concerning the state of Earth's biosphere (<a href="http://consensusforaction.stanford.edu/">http://consensusforaction.stanford.edu/</a>).

I was involved in planning the teeth scanning / display of paleontological research – room at the Finnish Museum of Natural History LUOMUS (FMNH) in 2006-2007 (permanently in display at the FMNH). I was the main scientific advisor for the "weather forecast for the past" exhibition part at the FMNH in 2011-2012 (permanently in display at the FMNH). I was part of the production, planning and content expertise team for the "Change in the Air – a popular-scientific exhibition about climatic changes and their effects on nature and humankind", at FMNH which is open as of November 21, 2015. I was a consultant for the "Seven Sibling from the Future" Exhibition at Heureka Science Center (exhibition open 17.11.2017-13.1.2019).

#### **Mobility**

Hosted Visitors (in Finland)

Arne Micheels (2006-2007 post-doc for one year, hosted w/Mikael Fortelius)

Christine Janis (2008, visit one week, hosted w/Mikael Fortelius)

Lars van der Hoek (2013, one week)

P. David Polly (2013, one week)

Jan Schnitzler, Christian Hof, Susanne Fritz (2014, one week)

Shan Huang (2015, one week)

Alison Eyres (2017, one month)

Nafeez Ahmed (2017, one week, w/BIOS)

Anthony D. Barnosky (2017, one week, w/BIOS and Kone Foundation)

Visits to foreign institutes (week or longer, no meetings listed)

<u>1.1.2014 - 31.12.2015</u>: Marie Curie Fellow at Biodiversität und Klima Forschungszentrum (BiK-F), Frankfurt a. M., Germany

4.-10.5.2013 & 31.8.- 8.9.2013: Visit to Biodiversität und Klima Forschungszentrum (BiK-F), Frankfurt a. M., Germany. Hosts: Andreas Mulch & Thomas Hickler, main focus on climate and vegetation modeling and proxy comparison of the past ecosystems

4.-11.11.2012 & 18.-26.2.2013: Visit to Indiana University, Bloomington, USA. Host: David Polly, main focus on species distribution modeling and climate

<u>26.10.-4.11.2012</u> & <u>11.11-16.11.2012</u>: Visit to Brown University, Providence, USA. Host: Christine Janis, main focus on North American fossil mammal analysis

- <u>12.-19.8.2012</u>: Visit to Biodiversität und Klima Forschungszentrum (BiK-F), Frankfurt a. M., Germany. Hosts: Andreas Mulch & Thomas Hickler, main focus on climate and vegetation modeling and proxy comparison of the past ecosystems.
- <u>1.9.2011-30.6.2012</u>: Alexander von Humboldt research fellow at Biodiversität und Klima Forschungszentrum (BiK-F), Frankfurt a. M., Germany.
- <u>24.5.2011-3.6.2011</u>: Visit to Indiana University, Bloomington, USA. Host: David Polly, main focus on species distribution modeling and climate
- <u>20.2.2009-5.3.2009</u>: Visit to the Senckenberg Research Institute, Frankfurt a.M., Germany. Host: Arne Micheels, main focus on climate modeling and proxy comparison of past ecosystems
- <u>1.7.2006-30.1.2007</u>: Visiting scientist at the Senckenberg Natural history museum, Frankfurt a.M., Germany. Host: Volker Mosbrugger, main focus on Neogene mammal faunas and climate modeling.
- <u>21.1.2004-29.2.2004</u>: Visiting scientist at the Staatliches Museum für Naturkunde, Stuttgart, Germany. Host: Johanna Eder, main focus on understanding and combining plant macrofossil data with mammal data
- 8.10.-26.10.2003 & 10.6-22.6.2005: Visiting scientist at the Bayerische Staatsamlungen für Paläontologie, Munich, Germany. Host: Gertrud Rössner, main focus on analyzing the fauna of the Miocene Molasse basin of South Germany
- <u>1.9.2001-3.4.2002</u>: Master's Thesis student at the Centre de Paleontologie stratigraphique et Paleoecologie, Universite Claude Bernand Lyon 1, Lyon, France. Host: Jean-Pierre Suc, main focus on analyzing Pliocene pollen samples from Italy.