

CV: K. DE BAETS – PARADIVE TEAM LEADER

Name: Kenneth (René) De Baets

Date of birth: January 19th, 1984 (Gent, Belgium)

Nationality: Belgian

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Publons: <https://publons.com/researcher/25479>

<http://kennethdebaets.weebly.com> (lab)

<https://ibe.biol.uw.edu.pl/en/people/dr-hab-kenneth-de-baets/>
(university)



Research interests: I am an evolutionary paleobiologist documenting and interpreting the relative contributions of abiotic (e.g., climate) and biotic factors (e.g., parasitism) in driving large-scale ecological and evolutionary patterns in the history of life.

Current research focuses on macroecology, biotic interactions, and biomineralization. For example: How does body size distribution and growth respond to climate warming and related environmental stressors? How does parasitism relate to host biodiversity and disease? How does seawater chemistry affect biomineralization of aquatic ectotherms?

For this purpose, I strive to work across disciplines and find means to test hypotheses with different lines of evidence, ranging from evolutionary ecology, over quantitative and molecular (paleo)biology, to developmental paleobiology, (paleo)parasitology and earth sciences.

I also work in other research areas, principally biogeography, biostatistics and geometric morphometrics, environmental analysis, experimental taphonomy and phylogenetic analysis. I remain active and maintain interest in methods (sample preparation and quantitative analyses) used in all these fields. I would therefore be happy to advise students in these and other areas.

Latest student research includes: diversity and body size dynamics of marine invertebrates, Holocene trends in parasite-host prevalence captured in coprolites and skeletal pathologies, 3D-reconstruction and morphometry as well as experimental taphonomy of invertebrates and vertebrates.

Qualifications

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| 2019 | Habilitation / Venia Legendi in Paleobiology, Geozentrum Nordbayern, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany |
| 2012 | Dr. sc. nat. in Evolutionary Biology, Paläontologisches Institut und Museum, University of Zürich, Switzerland (Mentor: Prof. Dr. Christian Klug) |
| 2006 | Master in Geology awarded with Great Distinction, Department of Geology and Soil Science, Ghent University, Belgium (Mentor: Prof. Dr. Jacques Verniers) |

Positions held

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| 3/2022 - | Assistant Professor (Adiunkt) – Institute of Evolutionary Biology, Faculty of Biology, University of Warsaw |
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6/2019 – 2/2022	Akademischer Oberrat – Geozentrum Nordbayern, Friedrich-Alexander Universität Erlangen-Nürnberg, Germany
6/2013 – 5/2019	Akademischer Rat (~ Assistant Professor) – GeoZentrum Nordbayern, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany
5/2012 – 4/2013	SNF Visiting Fellow, School of Earth Sciences, University of Bristol, United Kingdom
9/2011 – 3/2012	Postdoctoral Researcher, Palaeontological Institute and Museum, University of Zürich, Switzerland

Further education (selection)

2020	Blended-Learning and ILIAS Courses (Institute for Learning Innovation)
2019	Workshop “Herkunft macht Karrieren” (FAU Learning Lab)
2019	Workshop on “Gender Bias at the Workplace” (FAU Learning Lab)
2019	Workshop Teaching in Motion – Digital Lehre bewegt!
2018	Ecological Modelling in Palaeontology, University of Vienna, Austria
2017	International Workshop on Konservat-Lagerstätten, University of Cork, Ireland
2016	TERSANE Summer School on Macroevolutionary and Macroecological Impacts of Temperature-Related Stresses, Friedrich-Alexander Universität Erlangen-Nürnberg
2013	EMBO Post-Genomic Phylogenetic Course, Fondazione Majorana, Erice, Italy
2013	International Flügel Course on Carbonate Microfacies, Geozentrum Nordbayern, Erlangen, Germany

Invited presentations

As invited speaker (21): including keynotes at the GSA Meeting in Indianapolis and the 5th International Paleontological Congress in Paris (2018), University of Leeds (2018), University of Missouri (Columbia 2015), University of Zürich (2016, 2011), Natural History Museum (London 2013), Museo di Archeologia e Scienze Naturali (Montecchio Maggiore 2015), Steinmann Institute (University of Bonn 2012)

Prizes and Awards (selection)

2019 – Elected member of the [Paleosynthesis Advisory Board](#)
2017 – Emerging Talents Initiative (Friedrich-Alexander-Universität Erlangen-Nürnberg)
2012 – Grant for Prospective Researchers, Swiss National Science Foundation

Editorial Work (selection)

2021 –	Editor of Topics in Geobiology volumes on the evolution and fossil record of parasitism (with J.W. Huntley)
2020 –	Associate Editor, Palaios
2019 –	Associate Editor, Historical Biology
2014 –	Academic Editor, PeerJ : handled >64 contributions
2014 – 2015	Editor of <i>Advances in Parasitology</i> volume on fossil parasites (with T. Littlewood)
2014 – 2015	Co-Editor of two-volumes in <i>Topics in Geobiology</i> on Ammonoid Paleobiology

Publications and Reviewing Activities

I have published:

40 articles in international peer-reviewed (ISI) journals,
10 book chapters and
co-edited **5 books** and special volumes.

In addition, I have reviewed for:

Grant Agencies (2013 –): > **10 grant applications** for Czech Research Foundation (GACR), German Science Foundation (DFG), Foundation for Polish Science (FPS), National Science Foundation (NSF; USA), Swiss National Science Foundation (SNF), and Humboldt Foundation (Germany)

Scientific Journals (2010 –): > **80 manuscripts** in major journals in **Biology** (Ecology Letters, Integrative and Comparative Biology, Journal of Biogeography, Proceedings of the Royal Society B), **Geology** (Journal of the Geological Society, Newsletters on Stratigraphy), **Paleontology** (Paleobiology, Palaeontology) and **Natural Sciences** in general (Plos One, Interface Focus, Scientific Reports)

Teaching Experience

- 2019 – 2021 Friedrich-Alexander-Universität Erlangen-Nürnberg (> 7 hours per week during semester); Main Courses: Paleobiodiversity, Macroevolution, Macroecology, Paleobiodiversity, General Paleontology, Evolution of Life, Research Project Design and Implementation, Quantitative Biostratigraphy, Paleontological Field Courses
- 2013 – 2019 Friedrich-Alexander-Universität Erlangen-Nürnberg (> 6 hours per week during semester); Main Courses: Analytical Paleobiology, General Palaeontology, Macroevolution, Paleobiodiversity, Evolution of Life, 5 Paleontological Field Courses to Italy (7 days) and Germany (3 days), Earth System Dynamics
- 2012 – 2013 Guest lecturer, Controversies in Paleobiology and Macroevolution, University of Bristol
- 2007 – 2011 Teaching assistant, University of Zürich; Courses: Paleontology and Biostratigraphy Practicals; 12-day Paleontological Field Courses to France (1) and Morocco (2)

Supervision of graduate students and collaboration with postdoctoral fellows

- 2013 – 2020 **16 Bachelor** students (*Hans Bähr, Manuel Blank, Fabian Dirscherl, Romy Eichler, Kerstin Frühbeißer, Rebecca Gold, Benjamin Gügel, Alexandra Kölbl, Peter Laschinger, Shamsiya Mammadova, Paulina Nätscher, Martina Schlott, Julia Stilkerich, Christof Übelacker, Elisabeth Weiland, Thomas Wolkenstörfer*), **7 Master** students (*Pascal Abel, Thomas Clements, Fabian Dirscherl, Marianne Kunkel, Laura Mulvey, Paulina Nätscher, Christof Übelacker*) and **3 Ph.D.** students (*Carole Naglik, Paulina Nätscher, Patrícia Rita*)
- 2013 – 2018 Host to Dr. John Huntley for a total of 6 months through Humboldt Fellowships

Institutional Responsibilities

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- 2020 – Admission Commission for Master “Geowissenschaften”
- 2015 – Scientific contact for computed tomography μ CT, Friedrich-Alexander-Universität Erlangen-Nürnberg
- 2014 – Co-Organizer of the Literature Seminar and Library Representative, Friedrich-Alexander-Universität Erlangen-Nürnberg
- 2013 – Member of the GeoZentrum Committee; mid-level faculty representative, Friedrich-Alexander-Universität Erlangen-Nürnberg
- 2012 – 2013 Undergraduate student tutor and organizer of the Internal Seminar, University of Bristol, United Kingdom
- 2004 – 2006 Student representative in the Department Committee, Ghent University, Belgium

Organization of Scientific Meetings

- 2020 Symposium on *Earth System Paleobiology: closing the geological and biological gap* (convener), EGU (Sharing Geoscience Online), Vienna
- 2019 Workshop on *Open Data Analysis and Publication* (co-organizer), PalGes, Munich
- 2019 Symposium on *Physiology in Deep Time* (co-convener), PalGes, Munich
- 2019 3rd Workshop on the *Toarcian Anoxic Event* (organizer), IGCP 655, Erlangen
- 2018 Symposium on *Ecological Role of Extinct Organisms* (convener), PalGes, Bonn
- 2016 Symposium on *Biotic Interactions* (convener), PalGes, Dresden
- 2015 Symposium *T.159 on Parasitism* (convener), GSA 2015, Baltimore, USA
- 2014 *Paleozoic Session* (invited chair), *Cephalopods – Past and Present* Meeting, Zürich
- 2013 *Paleozoic Session* (invited chair), Palaeontological Association Meeting, Zürich
- 2010 *La Baume* Field Trip (organizer) – *Cephalopods – Present and Past*, Dijon

Media attention and outreach (a more complete list can be found on my website)

Newspapers/Magazines: Berliner Zeitung (2011); Der Bund (2012); Der Standard (2015, 2012); Frankfurter Rundschau (2011); Newsweek (2020); Nürnberger Nachrichten (2018, 2017, 2014); St. Galler Tagblatt (2012); Tages-Anzeiger (2012); The Guardian (2017, 2016); Spektrum der Wissenschaften (2011)

Blogs: Discover (2011); National Geographic Phenomena (Laelaps, 2014); Scientific American (2011); The Guardian (Lost Worlds Revisited, 2016); Wired (2012, 2011)

Podcast: Palaeocast (2013, 2018)

Radio: Deutschland RadioWissen (2012)

Publication Metrics

ResearcherID: [A-3419-2011](#)

Date: 30/05/2021

Publications listed: 53^{***} (26 in the last 6 years)

Average citation per item: 19.3

Times cited: 986 (1328 in Google Scholar)

h-index: 20 (24 in Google Scholar)

Publications in **high-ranked journals** in:

Biology (Evolution; Philosophical Transactions of the Royal Society B; BMC Evolutionary Biology,



Advances in Parasitology)

Earth Sciences (Palaeogeography,
Palaeoclimatology, Palaeoecology)

Paleontology (Palaeontology, Paleobiology)

*** Some book chapters are included in the ISI Core Collection. Several of these publications have received a **high level of attention** according to Altmetric, relative to their age, and the serial in which they were published.

Five significant publications (citations in ISI/Google Scholar are listed; 30/05/2021)

1. Rita, P., Nätscher, P., Duarte, L., Weis, R., **De Baets, K.** (2019). Mechanisms and drivers of belemnite body-size dynamics across the Pliensbachian-Toarcian crisis. *Royal Society Open Science* 6: 190494 (11/16 Citations in ISI/Scholar) – quantitative support for a size reduction in response to warming driven by a decrease in adult size
2. **De Baets, K.**, Antonelli, A., Donoghue, P. C. J. (2016). Tectonic blocks and molecular clocks. *Philosophical Transactions of the Royal Society B* 371: 20160098 (23/42 Citations in ISI/Scholar) – develops an approach to more meaningfully compare the divergence of lineages with tectonic events such as the break-up of continents.
3. **De Baets, K.**, Dentzien-Dias, P., Upeniece, I., Verneau, O., Donoghue, P.C.J. (2015). Constraining the Deep Origin of Parasitic Flatworms with Fossil Evidence. *Advances in Parasitology* 90: 93-135 (19/30 Citations in ISI/Scholar) – illustrates how the evolutionary history of parasitic flatworms can be meaningfully constrained using fossils.
4. Ritterbush, K. A., Hoffmann, R., Lukeneder, A., **De Baets, K.** (2014). Pelagic palaeoecology: the importance of recent constraints on ammonoid palaeobiology and life history. *Journal of Zoology* 292:229-241 (73/83 Citations in ISI/Scholar) – roadmap to study ammonoid ecology
5. **De Baets, K.**, Klug, C., Korn, D., Landman, N.H. (2012). Early Evolutionary trends in ammonoid embryonic development. *Evolution* 66: 1788-1806 (65/79 Citations in ISI/Scholar) – evidence for a decrease in hatchling size during early ammonoid evolution.

Public Engagement Activities

Contributed materials to various **museum exhibitions** (Co-Editor of the Paleontological Museum of Zürich Exhibition guide; contributor to Paleontological Museum of Zürich “Mass Extinctions and Evolution” exhibit as well as the [Smallest Mollusk Museum](#))

Honorary and invited museum presentations to broad audiences, ranging from school and kindergarten children (Palaeontological Museum, Zürich) to interested non-professionals (Paleontological Association of Switzerland workshops) and scientists outside of my discipline (Natural History Museum Science Seminars). I also gave various public presentations and tours during the yearly Long Night of the Zürich Museums (2007-2011) as well as the Long Night of the Sciences in Erlangen (2015, 2017).

Broad coverage of my research: **local newspapers** (Tagesanzeiger, Standard), **international news outlets** (Scientific American, National Geographic, PBS, Newsweek), **science blogs** (Discover, Wired) and **podcasts** (Palaeocast).

Additional skills

Languages: Dutch (mother language); English (fluent in reading, talking and writing); German (fluent in reading, talking and writing); French (fluent in reading and talking)

Software Skills: Adobe Illustrator/Indesign/Photoshop/Spark; ArcGIS; PAST; R/Matlab; BEAST/Revbayes; Tomographic Software (Drishti/SPIERS/VGStudio Max)