

Curriculum vitae Paul L.E. Bodelier

Senior Researcher, Netherlands Institute of Ecology (NIOO-KNAW) of the Royal Netherlands Academy of Arts and Sciences, Droevendaalsesteeg 10, 6708 PB, Wageningen, the Netherlands. Tel +31.317.473.485; email: p.bodelier@nioo.knaw.nl (Date of birth: December 16, 1966)

Researcher ID: <http://www.researcherid.com/rid/A-9591-2011>

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Education

- MSc degree: Biology, Ecology and Microbiology (supervisors Prof. Dr. C.W.P.M. Blom and Prof. Dr. H.J. Laanbroek), University of Nijmegen, 1991.
- PhD degree: Thesis: Nitrification and denitrification in the rhizosphere of *Glyceria maxima*: “The plant gives..the plant takes”. (Promotors Prof. Dr. C.W.P.M. Blom and Prof. Dr. H.J. Laanbroek), University of Nijmegen, 1997.

Research Interests

Functional Ecology of microbial communities involved in biogeochemical cycles in terrestrial and aquatic ecosystems. The main research topics addressed are:

- The role of microbial diversity, community composition and microbial traits in geochemical cycling.
- The role of microbial diversity, community composition and traits in resistance and resilience against perturbations.
- Impact of environmental drivers (e.g. agricultural practices, flooding, climate change, grazing etc.) on GHG fluxes from terrestrial and aquatic ecosystems.
- Ecology of methane cycling microbes.
- The importance of methane as energy source in aquatic foodwebs.
- The exploitation of microbial communities for benefit of the society.

Professional results

(Co) authorship of 100 papers in refereed journals of which 3 in Nature and 1 in PNAS, 7 book chapters, 1 Ebook, supervisor of 6 completed PhD theses. H index = 33.

Academic functions

1991 – 1992 Research assistant, Netherlands Institute of Ecology, Centre for Terrestrial Ecology, Heteren, The Netherlands.
1992 – 1997 PhD student, Netherlands Institute of Ecology, Centre for Terrestrial Ecology (Heteren, The Netherlands).
1997 – 1999 Post-doctoral research fellow, Max-Planck Institute for Terrestrial Microbiology Marburg, Germany.
1999 – 2007 Post-doctoral research fellow, Netherlands Institute of Ecology, Centre for Limnology Nieuwersluis, the Netherlands.
2008 – Senior Researcher Netherlands Institute of Ecology, the Netherlands.

Acquisition:

- Schure-Beijerinck-Popping fund grant, 3000 euro, 2006.
- EuroDiversity METHECO, 240 000 euro, ESF-NWO, October 2006-October 2009.
- SOWACOR (SOil Water and COastal Research), KAUST GRP, 289.000 USD, 2008-2010.
- EuroEEFG MECOMECON, 240 000 euro, ESF-NWO, May 2010-March 2013.
- ESF Eurodiversity exchange grant, 4000 euro, ESF, June 1-July 10.
- EuroMicrobe workshop, 22 000 euro, ESF-Eurodiversity, December 8-10.
- KNAW visiting professor grant, 7000 euro, March 1-April 17 2010.
- KNAW China Exchange Programme travel grant, 1800 euro.
- Courage Innovation Network, 8300 euro.
- BE-Basic 2011-2014, 1.1 Meuro.
- NWO open access publishing grants 2100 euro.
- BE-Basic BIOEN-FAPESP, co-PI.

- ESF EuroEEFG network grant, 35 000.
- BE-Basic SURESUPPORT, 2012-2016. Co-PI.
- ESF EuroEEFG networking grant, 33 000. Session at 14th ISME symposium.
- ESF EuroEEFG networking grant, 35 000. Workshop, 10-13 February 2013, Wageningen.
- ESF EuroEEFG final conference networking grant, 195 000. Frontiers in Ecological and Evolutionary Genomics. Noordwijkerhout, 26-31 May, 2013.
- Swiss National Science Foundation (SNSF) 2013-2016. Co-PI. The stability of soil microbial functions under disturbance. A study of mechanisms linked to trace gas fluxes.
- Netherlands Organization of Scientific research (NWO) open round grant. (2013-2016). LifeMOB: Unravelling life strategies of methane-oxidizing bacteria using a proteomic approach. 249 kEuro.
- Netherlands Organization of Scientific research (NWO) thematic call “Groen”. (2015-2020). CCC. Clever Cover Cropping. Public –Private partnership amounting to 890.000 euro.
- Co-Pi in Polish Harmonia grant (2016-2018). The effects of warming and eutrophication on emissions of methane and its importance in lake food webs.
- NIOO strategic funds. The zooplankton microbiome (MicroZoo). Beyond microbe-host associations (2016-2018). 132 kEuro.

Invited presentations

- TU Delft 2006. Title: Does microbial diversity matter for methane fluxes!?
- Utrecht University 2006. Advances in Biogeochemistry. A joint seminar series of the Landscape Ecology and Geochemistry groups. Title: Does microbial diversity matter for methane fluxes!?
- NIOO days, Lunteren, 7 February 2007: Plant-Animal-Microbe Interactions in a shallow lake: direct and indirect effects of foraging waterfowl.
- ESF Workshop; Microbial Diversity and Ecosystem Functioning. 7-1 March 2007, Lunz, Austria. Title: Biodiversity conservations and microbes: Methane consumers as an example of microbes to preserve.
- 10th International Symposium on Wetland Biogeochemistry, April 1-4 2007, Annapolis, US. Interactions between foraging waterfowl and methane cycling in shallow lakes: direct and indirect effects of foraging waterfowl.
- 1st Conference on Challenges in Biodiversity (Eurodiversity), 3-5 Oktober 2007, Paris. Title: Biodiversity conservations and microbes: Methane consumers as an example of microbes to preserve.
- Methane fuelled foodwebs, minisymposium Utrecht University, July 3, 2008. The effect of herbivores on methane processing microbes in shallow lakes.
- Institute of Plant Sciences, ETH Zürich, April 23-25, 2008. Factors affecting the ecology of methane processing microbes in soils and sediments.
- Swedish University of Agricultural Sciences, Uppsala, Sweden, November 12-14, 2008.
- EGU meeting, Vienna, April 19-24, 2009. Session speaker
- FEMS symposium, Gothenburg, June 28-July 2, 2009. Session speaker
- Research Center for Eco-Environmental Sciences. Chinese Academy of Sciences, Beijing, September 19-21, 2010.
- Institute of Soil Sciences, Chinese Academy of Sciences, Nanjing, September 2010.
- Institute of Hydrology, Chinese Academy of Sciences, Wuhan, September 24-25, 2010.
- Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, Changchun, September 26-29, 2010.
- 9th INTECOL international wetlands conference, June 2-8, 2012, Orlando. The role of microbial diversity and traits in methane cycling in wetlands.
- Microsymposium “Methanotrophs and their potential: from fundamentals to applications”. University of Gent, Belgium, March 21, 2013. Title of presentation: Methanotrophic bacteria and their response to the environment: potential for bioindicators?
- Presentation at the STOWA annual Waterboard Ecologists meeting, June 12, 2013. Title of presentation: De samenstelling en eigenschappen van bacteriële gemeenschappen in sedimenten: belang voor het waterbeheer?
- Centre for Wetland Ecology Symposium, June 21 2013. Getting to the bottom of wetland functioning: the sediment-water interface. Title of presentation: Methane processing microbes in freshwater sediments: what makes them tick?.
- Max-Planck Institute for terrestrial microbiology, Marburg Germany. January 27, 2014. Aerobic methane oxidizing bacteria: a model system for microbial biodiversity ecosystem functioning research?
- Department of Biology, University of Istanbul. April 2014. Aerobic methane oxidizing bacteria: a model system for microbial biodiversity ecosystem functioning research?
- World Conference of Soil Science, June 2014, Jeju Korea. Traits of methane oxidizing bacteria as modulator of methane consumption in soils and sediments.

- The 7th International Symposium on non CO₂ greenhouse gases (NCGG-7). November 4-7 2014, Amsterdam. Interactions between the methane and nitrogen cycle in light of climate change.
- The first Global Soil Biodiversity Conference. Dijon, 2-5 December 2014. Functional microbial diversity, traits and interactions as modulating factors of nitrogen and methane cycling in soils.
- Minisymposium “Microbiology and biogeochemistry of carbon cycling in lakes”. March 17, 2016, Uppsala University, department of Ecology, Genetics and Limnology. Title: Ecology of methane cycling: controls, traits and life strategies.
- C1 minisymposium University of East Anglia, Norwich, UK. May, 5, 2016. Title: Ecology of methane cycling: controls, traits and life strategies.
- Universiteit Gent. 13 Juni 2016. Title: Ecology of methane cycling: controls, traits and life strategies.
- Gordon Research Conference Molecular Basis of one carbon metabolism. July 31-August5, Waterville Valley, USA. Title: "An Ecologist's Climate Change Experiments on Microbial C1 Cycling: Controls, Traits and Life Strategies"
- 2nd International Microbial Resource Management Conference, September 7-8, 2017, Gent Belgium. Volatolomics. Volatile mediated interaction stimulates methanotrophic growth and activity.
- 2nd Global Soil Biodiversity Initiative conference. October 15-19, Nanjing, China. Bio-based residues as GHG mitigation strategy creating climate smart agricultural soils.
- Minisymposium “Microbial Communities under climate change”. October 20, Nanjing China. Title: Ecology of methane cycling: controls, traits and life strategies.
- Seminar at College of Environmental Science and Engineering, Yangzhou University, Yangzhou, China. October 21, 2017. Title: Bio-based residues as GHG mitigation strategy creating climate smart agricultural soils.

PhD manuscript committee:

- Dr. Jaco van der Nat. Utrecht University. Methane emission from freshwater wetlands. April 2000.
- Nardy Kip. Radboud University Nijmegen. Methanotrophy in peatlands. March 2, 2011.
- Elle Wessén. Niche differentiation of Ammonia oxidizing bacteria and archaea in managed soils. Swedish University of Agricultural Sciences. Department of Microbiology, Uppsala, Sweden. 15 April.
- Ahmed F. Khadem. Radboud University Nijmegen. Methanotrophy under extreme conditions: Biochemistry and physiology of *Methylacidiphylum fumariolicum* SolV. December 2012.
- Manu Büscher. University of Antwerps, Belgium. Climate change effects on soil-related ecosystem properties and processes in grasslands and wetlands. 2013.
- Said Karbin. University of Zurich, Zwitserland. Effects of Global Change on Soil Methane Dynamics. 2015.
- Sandra Heinzmann, University of Utrecht. Metabolism of microbial communities in the environment: A compound-specific stable hydrogen isotope approach. 2015.
- Bram Vrekeman. University of Gent. Methanotrophic microbiomes from North Sea sediment. April 22, 2016.
- Frederiek-Maarten Kerckhof. Universiteit Gent. The methanotrophic interactome: Microbial partnership for sustainable methane cycling. May 12, 2016.
- Seyed Sepehr Mohammadi. One-carbon metabolism of acidophilic verrucomicrobial methanotrophs. Radboud University, Nijmegen. January 25, 2017.
- Yvonne Lipssewers. Role of chemolithoautotrophic microorganisms involved in nitrogen and sulfur cycling in coastal marine sediments. Utrecht University, September 22, 2017.
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PhD examination committee:

- Jaco van der Nat. Utrecht University. Methane emission from freshwater wetlands. April 2000.
- Manuela Coci. Utrecht University. Niche differentiation between ammonia-oxidizing bacteria in aquatic environments. October 2007.
- Marzia Miletto. Utrecht University. Sulfate-reducing prokaryotes in river floodplains. December 2007.
- Nardy Kip. Radboud University Nijmegen. Methanotrophy in peatlands. March 2, 2011.
- Arjen Boere, Validation and application of fossil DNA as a recorder of past marine ecosystems and environmental conditions, Utrecht, 29 oktober, 2010.

- Angela Pitcher, NIOZ. Intact polar lipids of ammonia-oxidizing archaea: structural diversity and application in molecular ecology, 2011.
- Juanjuan Wang. Ecology of neutrophilic iron-oxidizing bacteria in wetland soils, 2011. Utrecht University.
- Liesbeth Vissers. Spatial and temporal dynamics of thaumarchaeota in deep European lakes. May 2012.
- Anne Steenbergh. The microbial control of phosphorus fluxes in marine sediments. July 2012.
- Ahmed F. Khadem. Radboud University Nijmegen. Methanotrophy under extreme conditions: Biochemistry and physiology of *Methylacidiphylum fumariolicum* SolV. December 2012.
- Manu Büscher. University of Antwerps, Belgium. Climate change effects on soil-related ecosystem properties and processes in grasslands and wetlands. 2013
- Anne Daebeler. Archaeal ammonia oxidation in volcanic soils of Iceland. September 2014.
- Monica Ricao-Canelhas. Uppsala University, 18 March 2016. Life strategies for substrate assimilation of freshwater bacterioplankton.
- Bram Vrekeman. University of Gent. Methanotrophic microbiomes from North Sea sediment. May 27, 2016.
- Frederiek-Maarten Kerckhof. Universiteit Gent. The methanotrophic interactome: Microbial partnership for sustainable methane cycling. June 13, 2016.
- Seyed Sepehr Mohammadi. One-carbon metabolism of acidophilic verrucomicrobial methanotrophs. Radboud University, Nijmegen. January 25, 2017.
- Elvira Schnyder. Biodiversity–Ecosystem Functioning Relationships in Methanotrophic Communities. University of Zurich, September 1st 2017.

Supervision:

- Supervised 8 PhD students, 12 Msc students, 7 post-doc's and 4 technicians

Teaching

- Bachelors course: Wetlands and the Global Environment. 12 January 2006. Lecture and practical at NIOO-KNAW.
- Course Aquatic Ecology, Utrecht University 2007: 1 Lectures
- Wetlands in the Global Environment, Utrecht University 2007: lectures 2 hours; practical 28 hours.
- Wetlands in the Global Environment, Utrecht University, January 2008: lectures 2 hours; practical 28 hours.
- Wetlands in the Global Environment, Utrecht University, November–December 2008: lectures 2 hours; practical 28 hours.
- Course Aquatic Ecology, Utrecht University 2008: 1 lecture.
- SENSE Summerschool “Understanding Global Environmental Change”, 2009.
- Course Aquatic Ecology, Utrecht University 2009: 1 lecture
- Course Soil Microbiology, Leiden University, 2010: 1 lecture
- Course Soil Microbiology, Leiden University 2011: 1 lecture
- Darwin Summer School, Utrecht, July 2011: 2 lectures.
- Course Soil microbiology, Leiden University 2012: 1 lecture
- Capita Selecta; “Cutting Edge Ecology”, Wageningen University, 2012, 1 lecture.
- Microbial Ecology and Evolution, Leiden University 2013: 1 lecture.
- Capita Selecta; “Cutting Edge Ecology”, Wageningen University, 2016, 1 lecture.
- Lecture at SENSE/HIGRADE PhD course. “Stable isotope applications in microbiology and environmental studies”. Wageningen, December 11, 2017.
- Lecturer at “Soil Sustainability in a Bio-based Society” course. Agronomic Institute of Campinas, 25-28 February, 2018, Campinas, Brazil. Lecture title: “GHG fluxes from bio-based production systems: scientific innovations and implications.

Visits to Foreign research laboratories

- Smithsonian Environmental Research Centre, Edgewater, US. April 6-7, 2007.
- Institute of Plant Sciences, ETH Zürich, April 23-25, 2008.
- Swedish University of Agricultural Sciences, Uppsala, Sweden, November 12-14, 2008.
- Austrian Institute of Technology, Seibersdorf, Austria, June 30, 2009.

- Abisko Research Station, Abisko, Sweden, September 24-28, 2009.
- Helmholtz Center for Environmental Research GmbH – UFZ, Leipzig. June 1-2, 2010.
- Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, September 19-21, 2010.
- Institute of Soil Sciences, Chinese Academy of Sciences, Nanjing, September 2010.
- Institute of Hydrology, Chinese Academy of Sciences, Wuhan, September 24-25, 2010.
- Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, Changchun, September 26-29, 2010.
- Institute of Plant Sciences university of Bern, September 2011.
- IGB, Berlin, 2012.
- Center of Nuclear Energy in Agriculture, University of São Paulo (CENA-USP), October 22-27, 2012.
- Department of Biology, University of Istanbul, April 14 2014.
- Helmholtz Center for Environmental Research GmbH – UFZ, Leipzig. May 12-13, 2014.
- Soil Science Institute CAS, Nanjing, China (October 19-20, 2017)
- University of Yangzhou, China (October 20-22, 2017).

Chairing sessions at international meetings

- Discussion leader at the Gordon Research Conference on Applied and Environmental Microbiology, July 12-17 2015, Mount Holyoke, US.
- Chairing session at the 20th World Conference of Soil Science, June 8-13, 2014, Jeju, Korea.
- Chair at session at the 9th International Wetlands Conference, June 2-9, 2012, Orlando, USA.
- Session chair and speaker at the 13th International Symposium on Microbial Ecology, August 22-26, 2010.
- Session chair at 3rd FEMS congress of European microbiologists, June 28 2009, Gothenburg, Sweden.
- Host and organizer of ESF-Eurocore METHECO project meeting, January 30-February 1 2009, the Netherlands.
- Chair of a symposium session at the 10th International Symposium on Wetland Biogeochemistry, April 1-4 2007, Annapolis, US. Title of the session: biogeochemistry of methane oxidising bacteria: Developments concerning a key microbial group in wetland C-cycling.
- Organiser and chair of a symposium session at the 7th Intecol International Wetland Conference, July 25-30 2004 Utrecht, the Netherlands. Title of the session: Microbial molecular ecology in the rhizosphere of wetland plants.

Organization of workshops

- Co-organiser of Current Themes in Ecology: “Microbial Power”. Impact of microbial communities: from gut to globe. November 19, 2015, Lunteren.
- Organiser of the ESF-EuroEEFG final conference, 26-31 May, 2013, Noordwijkerhout, the Netherlands.
- Organiser of an ESF-EuroEEFG workshop, 10-13 February, 2013.
- Organiser of a contributed session at International Symposium on Microbial Ecology, Copenhagen, august 2012.
- METHECO workshop, Hilversum, January 30-February 2 2009.
- ESF Eurodiversity, EuroMicrobe workshop, Hilversum, December 8-10 2009.
- Member of organising committee annual NIOO days, 2009, Veldhoven.

Membership of editorial and scientific boards

- Editorial board member of Applied and Environmental Microbiology from 2000-present.
- Section Editor of Plant and Soil.
- Associate Editor Frontiers in Terrestrial Microbiology.
- Editorial Board of the ISME Journal from 2013-present.
- Member of the ESF review panel.
- Member of peer review college of the Danish Research Council.
- Member of ESF EuroEEFG steering committee.
- Panel member of the CSP-Torino-Piemonte peer review exercise coordinated by ESF.
- Member of Rubicon selection committee 2015.
- Panel member of the Research Council for Biosciences and Environment (RCBE) of the Academy of Finland. Helsinki, February 26-28, 2017.
- Member of Tenure track Evaluation committee of Department of Bioscience, University of Aarhus, Denmark. September 2017.

- Panel member of the Research Council for Biosciences and Environment (RCBE) of the Academy of Finland. Helsinki, February 4-6, 2018.
- Panel member of the ESF peer review panel for AXA future research leader fellowship fund. 2018.

Services to the scientific community

Refereeing of national/international grant applications

- NWO Veni grants.
- NWO visiting scientist programme.
- ESF EuroCore theme proposals.
- NERC (National Environmental Research Council UK)
- NSF (National Science Foundation)
- FWF (Austrian National Science Foundation).
- Israelian Science Foundation.
- National Research Foundation of Czechia.
- Danish National Research Council.
- Russian Ministry of Education
- ERC consolidators grants (2015)
- Flamish Technology Fund (2015)
- ERA-Net BioDiversa (2016)

Refereeing for Journals

- Applied and Environmental Microbiology (Editorial Board)
- Atmospheric Environment
- Biogeosciences
- Biotechnology and Bioengineering
- BMC Microbiology
- Ecology Letters
- Ecological Engineering
- Environmental Microbiology
- Environmental Science and Technology
- FEMS Microbiology Ecology
- FEMS Microbiology Letters
- Frontiers in Microbiology (Chief Editor)
- Geoderma
- Global Change Biology
- ISME Journal (Editorial board)
- Journal of Soils and Sediments
- Journal of Environmental Quality
- Nature
- Nature protocols
- Nature Reviews Microbiology
- Oecologia
- Plant and Soil (Section Editor)
- PlosOne
- Proceedings of National Academy of Sciences (PNAS)
- Science
- Science of the total Environment
- Scientific Reports
- Soil Biology Biochemistry
- Wetlands

Dissemination activities (TV, radio, newspapers, websites)

- Popular scientific magazine Mens en Wetenschap 2000: “Methaan-etende bacterien houden van mest”.
- Newspaper article Volkskrant 2000: “Meer mest helpt tegen aardgas”.
- Article in Bionieuws 2000: “Bemesten van rijstvelden vermindert uitstoot broeikasgas”.
- Newspaper article: Trouw 2000: “Milieuvriendelijke kunstmest”.
- Radio interview: Vroege vogels radio (2007)
- Prepared a question for the Television programme Hoe?Zo! (2007)
- Press release of ESF (2007)
- Organizing committee of the Open Day of the Centre for Limnology (2007)
- NRC Next, april 1, 2008. “Broeikasgas uit rijstveld kan minder”.
- Bionieuws, april 12, 2008. “Vaker rijsteelt geeft meer methaan”.
- Intermediair, april 3, 2008. “Rijstgassen; Bacteriën en het broeikas effect”.
- www.scienceguide.nl: 2008. “Mega effect van microben op uitstoot broeikasgas”.
- www.klimaatnieuws.nl: 2008. “Bacterien bepalen hoeveel methaan rijstvelden uitstoten”.
- www.agriholland.nl: 2008. “Micro-organismen hebben groot effect op uitstoot van methaan in de rijsteelt”.
- Article in “Mens en Vogel”, magazine of the Flemish association of bird protection 2011: “Nieuw broeikasgas ontdekt”.
- Newspaper article in NRC Next, July 23, 2015. “Er is een nieuw soort rijst en dat is heel erg nodig.
<http://www.nrc.nl/next/van/2015/juli/23/er-is-een-nieuw-soort-rijst-en-dat-is-heel-erg-no-1516881>
- Newspaper article in NRC Handelsblad, July 24, 2015. “Chinezen maken klimaat rijst: goed voor opbrengst en milieu.”
<http://www.nrc.nl/handelsblad/van/2015/juli/24/chinezen-maken-klimaatrijst-goed-voor-opbrengs-1520123>
- Article in popular science magazine “Kijk”, July 24, 2015. “GM-rijst stoot minder methaan uit”.
<http://www.kijkmagazine.nl/nieuws/gm-rijst-stoot-minder-methaan-uit/>
- Newspaper article Los Angeles times, July 22, 2015. “GMO rice could reduce greenhouse gas emissions, study says”.
<http://www.latimes.com/science/sciencenow/la-sci-sn-gmo-rice-methane-emissions-20150722-story.html>
- Nature podcast July 2015. “An engineered strain of high-starch, lower-methane rice could help feed more people and combat emissions”.
<http://www.nature.com/nature/podcast/index-2015-07-23.html>.
- Science magazine news article, July 22, 2015. “New rice variety could feed the planet without warming it”.
<http://news.sciencemag.org/climate/2015/07/new-rice-variety-could-feed-planet-without-warming-it>.
- Article MIT technology review. July 22, 2015. “New GMO Rice for Higher Yield, Less Global Warming”.
<http://www.technologyreview.com/news/539536/new-gmo-rice-for-higher-yield-less-global-warming/>
- Interview in Radio show German national radio, 23 July 2015. (Deutschland Funk). Deutschland Aktuell.
http://www.deutschlandfunk.de/klimaschonender-reis-neue-sort-e-soll-methan-emissionen.676.de.html?dram:article_id=326248
- Interview in Dutch national radio show. Radio 5, de kennis van nu. August 14, 2015.
- Newspaper article Straights Times, July 25, 2015. “A healthier type of rice for the planet”.
<http://www.straitstimes.com/world/europe/a-healthier-type-of-rice-for-the-planet>
- Newspaper article in Tech Times, July 23, 2015. “GMO rice produces higher yield, less greenhouse gases”.
<http://www.techtimes.com/articles/71475/20150723/gmo-rice-produces-higher-yields-less-greenhouse-gases.htm>.
- MSN news feature, July 22, 2015. <http://www.msn.com/en-ph/news/other/scientists-create-low-methane-rice/ar-AAAdlME7>.
- Lecture for high school and primary teachers at Omniversum, October 10, Den Haag. Title: Amazing microbes. Hoe bacteriën uw heden, verleden en toekomst bepalen.

Non Scientific committees:

- Chairman of the parents association of primary school “De Tweeklank”, Nieuwegein, Netherlands 2000-2008.
- Member of the NIOO apparatus committee (2008-present)
- Member of the NIOO ARBO committee (2007-present)
- Member of the NIOO personnel representation committee (OC-NIOO; 2010-present). Chairman since 2011.
- Member of the Royal Academy of Arts and Sciences personnel representation committee (OR-KNAW; 2012-present).

Publications:

2018

AJ Veraart, P Garbeva, F van Beersum, A Ho, CA Hordijk, M Meima-Franke, H Zweers, **PLE Bodelier**. Living apart together – Volatile organic compounds influence methanotrophic growth and activity. ISME J, in press.

Max Reumer, Monika Harnisz, Hyo Jung Lee, Andreas Reim, Oliver Grunert, Anuliina Putkinen, Hannu Fritze, **Paul L.E. Bodelier**, Adrian Ho. Impact of peat mining, and restoration on methane turnover potentials and methane-cycling microorganisms in a northern bog. Applied and Environmental Microbiology, in press.

Elvira Schnyder, **Paul Bodelier**, Martin Hartmann, Ruth Henneberger Pascal A. Niklaus. Diversity enhances performance of methane-oxidizing bacteria. Ecology, in press.

2017

Jos Schilder, Maarten van Hardenbroek, **Paul Bodelier**, Emiliya P. Kirilova, Markus Leuenberger, André F. Lotter and Oliver Heiri (2017). Trophic state changes can affect the importance of methane-derived carbon in aquatic food webs. Proceedings of the Royal Society B. 284, issue 1857, article number 20170278.

Adrian Ho, Umer Zeeshan Ijaz, Thierry K.S. Janssens, Rienke Ruijs, Sang Yoon Kim, Wietse de Boer, Aad Termorshuizen, Wim H. van der Putten, and **Paul L.E. Bodelier**. (2017). Effects of bio-based residue amendments on greenhouse gas emission from agricultural soil are stronger than effects of soil type with different microbial community composition. Global Change Biology Bioenergy, doi: 10.1111/gcbb.12457.

Ho, A., Di Lonardo, P., **Bodelier, P.L.E.** (2017). Revisiting life strategy concepts in environmental microbial ecology. FEMS Microbiol Ecol, 93(3), fix 006.

Daebeler, A, Bodelier, P.L.E., Hefting, M.M., Rütting, T., Laanbroek, H.J. (2017). Soil warming and fertilization altered rates of nitrogen transformation processes and selected for adapted ammonia-oxidizing archaea in sub-arctic grassland soil. In: Soil Biology & Biochemistry, 107:114-124.

2016

Ho, A., Angel, R., Veraart, A.J., Daebeler, A., Jia, Z., Kim, S., Maarten Kerckhof, F.M., Boon, N., **Bodelier, P.L.E.** (2016). Biotic Interactions in Microbial Communities as Modulators of Biogeochemical Processes: Methanotrophy as a ModelSystem. Frontiers in Microbiology. 7:article 1285.

Cai, Y.F., Zheng, Y., Bodelier, P.L.E., Conrad, R., Jia, Z.J. (2016). Conventional methanotrophs are responsible for atmospheric methane oxidation in paddy soils. Nature Communications 7, DOI: 10.1038/ncomms11728.

[Ho, A.](#), [van den Brink, E.](#), [Reim, A.](#), [Krause, S.M.B.](#), **Bodelier, P.L.E.** (2016). Recurrence and Frequency of Disturbance have Cumulative Effect on Methanotrophic Activity, Abundance, and Community Structure. Front. Microbiol. 6:1493, DOI: 10.3389/fmicb.2015.01493.

2015

Krause, S., Niklaus, P.A., Badwan Morcillo, S., Meima-Franke, M., Luke, C., Reim, A., Bodelier, P.L.E. (2015). Compositional and functional stability of aerobic methane consuming communities in drained and rewetted peat meadows. FEMS Microbiology Ecology, 91, doi: 10.1093/femsec/fiv119.

Kim, P.J, Bodelier, P.L.E., Lu, Y. 2015. Mechanisms controlling greenhouse gas emissions from soils. Geoderma 259-260: 321-322.

Bodelier, P.L.E. 2015, Bypassing the methane cycle. Nature 535:523-524.

Adrian Ho, Andreas Reim, Sang Yoon Kim, Marion Meima-Franke, Aad Termorshuizen, Wietse de Boer, Wim H. van der Putten, and Paul L.E. Bodelier. (2015) Unexpected stimulation of soil methane uptake as emergent property of agricultural soils following bio-based residue application. Global Change Biology 21:3864-3879.

Bjorn JM Robroek, Vincent EJ Jassey, Martine AR Kox, Roeland L Berendsen, Robert TE Mills, Lauric Cecillon, Jeremy Puissant, Marion Meima-Franke, Peter AHM Bakker, Paul LE Bodelier (2015). Peatland vascular plant functional types affect methane dynamics by altering microbial community composition. *Journal of Ecology* 103: 925-934.

Annelies J. Veraart, Anne K. Steenbergh, Adrian Ho, Sang Yoon Kim, Paul L. E. Bodelier. (2015). Beyond nitrogen: The importance of phosphorus for CH₄ oxidation in soils and sediments. *Geoderma* 259-260:337-346.

Sang Yoon Kim, Annelies J. Veraart, Marion Meima-Franke and Paul L.E. Bodelier. (2015). Combined effects of carbon, nitrogen and phosphorus on CH₄ production and denitrification in wetland sediments. *Geoderma* 259-260:354-361.

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