

Curriculum Vitae

Ramutis G. Kiparskis

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Professional Summary

Environmental scientist/ soil scientist/ environmental resource manager offering expertise in: habitat classification, acquisition and evaluation of environmental field data; assisting others in technical biological laboratory and scientific work; maintaining and troubleshooting a variety of scientific and laboratory testing instruments, apparatus, and office machines. Possesses expert knowledge of accelerator mass spectrometry and its uses in ecosystems research. Applied environmental resource manager with exceptional problem-solving, communications, field, and operational skills in soil science, land use management and regulatory requirements, seeks a governmental job.

Skills

- 1) Habitat classification and environmental monitoring
- 2) Environmental regulatory chemistry
- 3) Natural resource sciences (carbon cycle, agronomy, forestry, soil science, potable water)
- 4) Innovation/ method development
- 5) Technical writing/ teaching in environmental resource management

Languages

Portuguese (Elementary), English (Native), Lithuanian (Adv. Beginner/ Intermediate), Spanish (Elementary), Russian (Elementary), Latvian (Elementary)

Professional Experience

Sept. 2013 – March 2020. Managing Director, Critical Resource Sciences Company, Redlands, CA; Montville, OH USA;

Accomplishments:

- Serving as scientific lead for a research consultancy in environmental chemistry, environmental health and environmental regulatory compliance
- Consulting in all phases of R&D, including, innovation detection, global material sourcing, natural resources, experimentation (experimental design, data collection systems), data handling and storage, statistical data analyses & interpretation, IP protection, and final documentation
- Partnered with startup- and emerging-tech companies in R&D/ environmental and safety compliance
- Provided technical/ operational support for vehicle emission program for USEPA Clean Air Act compliance
- Partnered as scientific adviser to a California-based venture capital firm to evaluate startup businesses, emerging technologies, and scientific breakthroughs
- Invited as expert for national government in promotion of regional and national science, technology, and innovation ecosystems development

Oct. 2012 – Oct. 2016. Visiting Scientist (VSP), Physical and Life Science Directorate, Chemical Sciences Division (Environmental Radiochemistry), Lawrence Livermore National Laboratory. Livermore, California, USA

Accomplishments:

- Published original research in the leading planetary science journal (Icarus) regarding a paradigm-shifting method for the detection of putative organic chemicals in Martian soil samples
- Spearheaded the development of a simplified and more sensitive method for the elucidation of the emerging toxin perchlorate's isotopic composition in low-mass samples obtained from groundwater, potable water, and various geological materials to support wastewater and environmental issues related to perchlorates/ nitrates/ other oxyanions
- Became an expert in field- and laboratory- methods for performing highly sensitive and accurate stable isotope and radiochlorine (Cl 36) measurements of various perchlorate-bearing geological materials and their purification

Mar. 2009 – Dec. 2012. Assistant Project Scientist, Department of Environmental Sciences. University of California, Riverside, California, USA

Accomplishments:

- Co-managed and maintained interdepartmental analytical chemistry facilities including the analytical instruments: GC, HPLC, LC-MSMS, ICP-AES, IC-ESI-MS, AA, TGA, DTG, UV-Vis, microwave digestion, rotary evaporator, calorimeter, particle size analyzer, SPE, vacuum extraction
- Conducted and published original research on trace metal biogeochemistry, measuring and evaluating pollutants in natural waters and ecosystems
- Volunteer mentor to students, including those from historically under-represented groups, performing environmental chemistry and other scientific research

Jun. 2007 – Dec. 2008. Lecturer/ Postdoctoral Research Associate, Department of Environmental Sciences. University of California, Riverside, California, USA

Accomplishments:

- Became a recognized mentor of undergraduate and graduate students (from University-wide academic programs) in research methods, environmental analytical chemistry techniques, data analyses, and scientific writing
- Taught classroom- and lab-based environmental science courses for science classes sometimes with >180 students from diverse socioeconomic and cultural backgrounds
- Conducted 2 y of independent field research on soil and riparian systems in the challenging and remote environment of Interior Alaska.
- Published original research towards better understanding the fate of soil carbon in Arctic tundra landscapes in response to permafrost thaw

Nov. 2005 – Dec. 2006. Visiting Postdoctoral Research Associate (part-time), Lawrence Berkeley National Laboratory (M. Torn Lab) (LBNL), Earth Sciences Division. University of California, Berkeley, California, USA

Accomplishments:

- Led the establishment of a radiocarbon preparatory laboratory with training of staff and students in obtaining various carbon mass fractions from soils for radiocarbon measurement

Jan. 2005 – Dec. 2006. Postdoctoral Research Associate, Lawrence Livermore National Laboratory (LLNL), Energy and Environment Directorate, Center for Accelerator Mass Spectrometry (CAMS). University of California, Livermore, California, USA

Accomplishments:

- Became a skilled operator and technician for the internationally-significant accelerator mass spectrometer at CAMS
- Became an expert in laboratory-, sampling-, and analytical methods for performing high sensitivity and accurate radiocarbon measurements of various atmospheric, biological, and geological materials
- Published original research with USGS and university-based colleagues regarding changes in the carbon stabilization/ destabilization processes in coastal soils (Santa Cruz, CA, USA) formed across geological timescales

Sept. 1999 – Dec. 2004. Graduate Research Assistant, Department of Natural Resources. Purdue University, West Lafayette, Indiana, USA

Accomplishments:

- Published the first definitive evidence confirming the presence of a putative plant toxin in natural soil water and, thereby, accessible to plants (and microbiota), as was originally proposed nearly 2000 years earlier by the Roman natural philosopher, Pliny the Elder
- Published original research regarding plant aboveground- and belowground- productivity vectors in complex mixed-plant systems for land conservation and management
- Taught numerous undergraduate and graduate students the course, Environmental Impact Assessment

Dec. 1999 – Feb. 2000 (3 months). Visiting Field Assistant, Brazilian Institute for the Environment (IBAMA). Santarém, Pará, Brazil

Accomplishments:

- Negotiated (in Portuguese language) contract work for NGOs working in difficult to access Brazilian natural areas.
- International field research experience in the Tropics (Amazonia), which included survey methods and documentation of Indigenous Knowledge (IK) systems

Dec. 1995 – Dec. 1998. Graduate Research Assistant (dual degree), Department of Soil Science and Dept. of Forest Ecology and Management. University of Wisconsin, Madison, Wisconsin, USA

Accomplishments:

- Published the thesis, "Land use effects on dissolved nitrogen and carbon leachates from a sandy soil in the Lower Wisconsin River Valley". Committee: Dr. J.G. Bockheim (Chair), Dr. P. Barak, Dr. E. Nordheim
- Performed 8 months of independent contract work for the Wisconsin Department of Natural Resources at remote forest locations to produce a forest productivity measure based on local habitat classification/ herb-layer plant taxonomy. Worked with Kotar's Wisconsin Forest Habitat Classification system.

SELECTED SCIENTIFIC WORKS (in order of significance)

- 1) G.R. von KIPARSKI, D.R. PARKER, and A.I. TSAPIN (2013). Removing perchlorate from samples to facilitate organic compound characterization and detection by pyrolytic methods. *Icarus* 225: 636-642
- 2) R.G. KIPARSKIS (2018). Building Innovation: USA Experiences. Taftie Expert Session I, 28th February 2018, Vilnius. Expert Session I. Creating ecosystems for innovative high – technology entrepreneurship: pathway to successful R&D outputs commercialization. Vilnius, Republic of Lithuania
- 3) G.R. von KIPARSKI, L.S. LEE, A.R. GILLESPIE (2007). Occurrence and fate of the phytotoxin juglone in alley soils under black walnut trees. *Journal of Environmental Quality*: 36(3): 709-717

- 4) G.R. von KIPARSKI, D.R. PARKER, and D.J. HILLEGONDS (2011). A simplified method for obtaining high-purity perchlorate from groundwater for isotope analysis. Technical Report LLNL-TR-479291. Lawrence Livermore National Laboratory, Livermore, California, USA
- 5) C.L. MOGREN, G.R. von KIPARSKI, D.R. PARKER, and J.T. TRUMBLE (2012). Survival, reproduction, and arsenic body burdens in *Chironomus riparius* exposed to arsenate and phosphate. *Science of the Total Environment* 425: 60-65
- 6) G.R. von KIPARSKI and A.R. GILLESPIE (2007). Agroforestry management effects on plant Productivity vectors within a humid-temperate hardwood alley-cropping system. In: Jose, S. and A. Gordon (eds.). *Ecological Basis for Agroforestry*. Kluwer Academic Publishers, Dordrecht, The Netherlands
- 7) G.R. von KIPARSKI, J.O. SICKMAN, T. SCHUUR, J. VOGEL, D. LUCERO, W. VICARS (2007). Using radiocarbon to detect the loss of old soil carbon in hydrologic fluxes from permafrost, *EOS Trans. American Geophysical Union*, 88(52), Fall Meet. Suppl., Abstract B23D-1604. San Francisco, California, USA
- 8) M. SHULZ, D. STONESTROM, G.R. von KIPARSKI, C. LAWRENCE, C. MASIELLO, A. WHITE, and J. FITZPATRICK (2011). Seasonal dynamics of CO₂ profiles across a soil chronosequence, Santa Cruz, California, USA. *Applied Geochemistry*. v. 26, supplement 1: s132-s134
- 9) C. LAWRENCE, J. HARDEN, K. MAHER, C. MASIELLO, and G. von KIPARSKI (2010). Linking the flux of water to soil development and carbon storage in the critical zone. Examples from the Marine Terrace Chronosequence, Santa Cruz, CA, USA, *Geophysical Research Abstracts*, 12: EGU2010-12535, Vienna, Austria
- 10) R. G. KIPARSKIS (2019). Analytical leaps and hurdles in the pursuit of biomolecule identification on Mars. October 2019. Dept of Earth, Environmental and Planetary Sciences, Case Western Reserve University, Cleveland, Ohio, USA
- 11) G.R. von KIPARSKI (2015). Two novel analytical approaches: peering into the atmospheric Record of Earth and Mars. "Formation and evolution of planetary systems and habitable planets". 21 - 30, August 2015. Molėtai, Republic of Lithuania
- 12) G.R. von KIPARSKI and A.R. GILLESPIE (2001). The relative importance of water and nutrient Competition in a temperate agroforestry system: modeling approaches. 2nd International Symposium: Modeling Cropping Systems. July 16, 2001. Florence, Italy

Awards and Honors

- 1) Dec. 2017. Recognized as Expert in Science and Innovation. Ministry of Economics – Research Innovation and Technology Agency (MITA). Republic of Lithuania
- 2) Feb. 2006. 1st Place, Lawrence Livermore National Laboratory Energy and Environment Directorate Postdoctoral Research Symposium, Feb. 15, 2006; G.R. von KIPARSKI(S), C.W. SWANSTON, S.C. CHINN, J.C. NEFF, J.W. HARDEN, A.F. WHITE, and P.J. REIMER (2006). Soil carbon dynamics in a California coastal terrace soil chronosequence
- 3) Oct. 2004. Nominee/ FINALIST, United States Geological Survey Mendenhall Fellowship. G.R. von KIPARSKI(S), W.F. CANNON, H. FOLGER and W.H. OREM (2004). Soil organic matter composition as a factor in controlling the fate of mobile trace elements in the geochemical landscape
- 4) Apr. 1985, 1986. US Congressional Nomination to US Military Academy (West Point)

VOLUNTEER AND PROFESSIONAL SERVICE

- 1) LT School of Art and Culture (Los Angeles), Founder and President 2020- present
- 2) Chagrin Valley Astronomical Society, Vice President, 2020-present
- 3) American Chemical Society, Member, 2015 – present

- 4) American Geophysical Union, Member, 2008 – present
- 5) Society of American Foresters, Member, 2020 – present

Education

PhD, Biogeochemistry. 2005. Purdue University, West Lafayette, IN, USA

MS, Soil Science. 1998. University of Wisconsin, Madison, WI, USA

MS, Ecology & Natural Resources. 1998. University of Wisconsin, Madison, WI, USA

BS, Materials Science & Engineering. 1990. Minor/Sequence, Classics. Case Western Reserve University, Cleveland, OH, USA (Honors: US Army West Point Congressional Nomination; Cooperative Education at Parker Hannifin Materials' Characterization Laboratory)

Languages

English (Native), Lithuanian (Adv. Beginner/ Intermediate), Portuguese (Elementary), Spanish (Elementary), Russian (Elementary)