

Curriculum Vitae - Susanne Kratzer

Name: Kratzer
 First name: Susanne
 Address: Hallgatan 16, 16932 Solna, Sweden
 Citizenship: German and Swedish
 Telephone: +46-70-2155509
 E-mail: Susanne.Kratzer@su.se
 URL: <https://www.su.se/english/profiles/suse-1.192395>



Academic Degrees

Oct 2008 **Docent (Associate Professor) in Marine Ecology**, Stockholm University (SU), Sweden. As docent, I have undergone formal University Pedagogics training at SU.

July 2001 **PhD degree University of Wales, Bangor (UWB)**. Thesis 'Bio-optical studies of coastal waters'. Subject area: Biological Oceanography. Supervisors: Prof. Paul Tett (based at Napier University, Scotland) and Dr Dave Bowers (UWB), Reader.

May 1995: **German degree 'Diplom Biologie' (Masters in Biology) Bremen University**, Germany; Marine Biology (main subject), Ecology, Botany and Chemistry. Masters thesis: 'A comparison of the optical properties of phytoplankton from oceanic and coastal waters'. Supervisor: Prof. Paul Tett and Prof. Victor Smetacek (AWI).

April 1990 **Vordiplom Philipps University Marburg** (first stage of German Diplom degree) in Biology; oral examinations in Botany, Zoology, Physics and Chemistry.

<i>Employment history</i>		
<i>From</i>	<i>To</i>	<i>Position, organisation, country</i>
2014	date	Senior Researcher , PI, Department of Ecology, Environmental and Plant Sciences (DEEP), Stockholm University (SU), Sweden
2012	2013	Senior Advisor , 20120401-20130930 secondment to Brockmann Consult, GmbH, Germany (funded by FP7 Marie Curie PEOPLE).
2009	2013	Researcher , PI, Department of Systems Ecology, Stockholm University, Sweden.
2005	2008	Assistant Professor (funded by SNSA), Department of Physical Geography and Quaternary Geology (INK; 2005-2006); Systems Ecology, SU (2007-2008).
2001	2004	Researcher , PI, Remote Sensing Group, INK, Stockholm University, Sweden.
1998	2000	Research Assistant , Remote Sensing Group, INK, Stockholm University, Sweden.
1995	1997	PhD Fellow , School of Ocean Sciences (SOS), funded by MAFF, University of Wales, Bangor (UWB), United Kingdom.
1993	1994	Research Officer , 50% (NERC funded), SOS, UWB, United Kingdom.
Leave of Absence: 9 months maternity leave during 2003/2004.		

Language proficiency

GERMAN: mother language (C2)

ENGLISH: fluent in speech and writing (level C1-C2). I studied English for 8 years at school and I have lived in the UK for 5.5 years and wrote most of my publications and my Master and PhD theses in English.

SWEDISH: fluent in speech and writing (TISUS certificate/ level C1 in 2005). I read the newspaper in Swedish and use it also as professional language. I have written several popular science articles in Swedish.

FRENCH: Advanced (C1). French was a main subject in my Abitur (A level). I worked in Paris as 'fille au-pair' and studied French literature at the Sorbonne for one term (French as a foreign language, highest level). Nowadays, it is a bit rusty.

Referees:

Professor Clare Bradshaw, Vice Head of Department, DEEP, SU: Clare.Bradshaw@su.se

Professor Rachel Foster (Fellow of the Knute and Alice Wallenberg Foundation, KWA), DEEP, SU: Rachel.Foster@su.se;

Professor Paul Tett, Reader in Coastal Ecosystems, SAMS, UK, paul.tett@sams.ac.uk

International research, teaching and academic experience

- Invited Lecturer, Baltic Earth Winter School, 27-31 March 2023 at IOW, Germany, organized by Professor Markus Meier, University of Rostock. Lectures on Marine Optics and Ocean Colour Remote Sensing.
- Invited Lecturer, Baltic Earth Summer School, 24-29 August 2020 organized by Professor Markus Meier, University of Rostock. Half day module on Marine Optics and Ocean Colour Remote Sensing.
- During 2008-2016, I was the main coordinator of two Nordic Networks in [Nordic Networks \(for Aquatic & Baltic Sea Remote Sensing\)](#) (NordForsk); 70 active researchers & 200 PhD and Master students; Focus: PhD training, scientific workshops, networking as well as vocation training; collaboration with the private sector; funded by NordForsk. In total, we organized 9 international PhD training courses and 11 workshops. I received formal training as Network Coordinator and we also worked with gender equality related issues.
- Invited Lecturer, EstSpace Summer School 'Applications and Operational Use of Remote Sensing for Monitoring Environment and Security, Tartu Observatory, Estonia, 27-28 Aug 2008.
- Invited lecturer, ERASMUS Mundus Masters course on Water and Coastal Management; teaching 2-3 ECTS module on 'Bio-optical monitoring of coastal waters' at the University of the Algarve, Faro, Portugal (2005; 2006) and 1.5 ECTS at Plymouth University, UK (2007).
- PhD in Biological Oceanography, School of Ocean Sciences, Menai Bridge, UK (1995-1997).
- Exchange student at the University of Wales, Bangor (1991); studies in marine botany and oceanography. BSc project on 'The Relationship between Chlorophyll and Florescence in a Scottish Sea Loch.'

Invited expert, advisor and evaluator

- Expert evaluator for the Science Foundation Ireland (SFI); mid-term evaluation of the Investigator Programme Award 'Integrating multidisciplinary geoscientific data into forecasting models to monitor and predict coastal change: Proof of concept in Dublin Bay', €900,739 over 48 months (PI: Prof Brian Kelleher, Dublin City University), Sept. 2021.
- National advisor for the Swedish Agency for Marine and Water Management (SwAM, in Swedish: HaV) in the implementation of optical methods as well as implementation of remote sensing methods into the pelagic monitoring program in Sweden. Vocational training for optical monitoring methods, streamlining and intercalibration of methods.
- Expert advisor to ESA in the preparation of the meeting BALTIC FROM SPACE WORKSHOP at the Finnish Meteorological Institute in Helsinki, Finland, 29-31 March 2017 organized by ESA, SYKE and FMI.
- Regular expert evaluator for the Belgian Remote Sensing Research Programme (since 2015).
- Invited expert for the Workshop BONUS EEIG for Information & Communication Technology Services for Environment, Safety and Security in the Baltic, Helsinki, 12 April 2010.
- Expert evaluation for the position 'Assistant Professor in Water and Environmental Studies' at Linköping University, LiU-2008-05306; 15 February 2010.
- Expert Evaluation for two 'Leading Research Fellows in 'Remote Sensing' and 'Aquatic Optics' at the Estonian Marine Institute, Tartu University, Estonia, 11 January 2010.
- Scientific advisor; Estonian Research programme (EstSpace), EU capacity building program (2008-2010).

Major academic assignments

- Editor for the MDPI open access journal *remote sensing* (since 2019).
- PI of National Infrastructure: NASA AERONET-OC station in Lake Vänern since 2008; before based in Gotland (since 2001). Our data has contributed to the ESA MERMAID data base with a fair number of valid MERIS match-ups in highly absorbing waters.

Awards & scholarships

- Prize ‘Best student presentation’: Satellite Remote Sensing in Marine Coastal Ecosystems – Applications for Monitoring and Management; authors: E. Therese Harvey (my PhD student), Susanne Kratzer & Petra Philipson, Nordic Marine Science Conference, Oslo 28-30 Oct 2013.
- ‘Best of Plenary Session’ for ‘Remote sensing and optical in-water measurements of a cyanobacteria bloom in the Baltic Sea’, 6th International Conference Remote Sensing for Marine and Coastal Environments 1-3 May 2000, Charleston, USA.
- Senior Researcher (2013-2015) funded by Swedish National Space Agency; Dnr. 147/12.
- Assistant Professor (2005-2008) funded by Swedish National Space Agency: Dnr 93/06:1 & 94/04.
- PhD Scholarship (1995-1998) from the UK Ministry of Agriculture, Fisheries and Food (MAFF).

Opponent and expert evaluator of PhD studies

- Chairman Evaluation Committee, PhD thesis 'Broad-scale patterns in organic matter concentrations of inland waters - insights from remote sensing and GIS' by E.S. Al-Kharusi, 28 May 2021, Department of Physical Geography & Ecosystem Science, Lund University, Sweden.
- Opponent for PhD thesis ‘Remote Sensing Algorithms for Turbid Waters’ (2020) by Kristi Uudeberg Tartu Observatory, University of Tartu, Estonia
- Opponent for PhD thesis ‘Bio-optics and Ecology in *Emiliana huxleyi* Blooms: Field and Remote Sensing Studies in Norwegian Waters’ (2012) by Erlend Kjeldsberg Hovland Norwegian University of Science and Technology (NTNU), Department of Biology, Trondheim, Norway.
- Expert evaluator for PhD thesis ‘Spaceborne Inland Water Quality Monitoring’ (2011) by Daniel Odermatt, Faculty of Sciences, University of Zurich (CH), Switzerland.
- Opponent for PhD thesis ‘Bio-optical properties of eutrophic lakes’ (2008) by Birgot Paavel, Estonian Marine Institute, University of Tartu, Estonia.

PhD students supervised:

- Co-supervision of **Sean O’Kane**’s PhD project ‘Developing and Validating Satellite Remote Sensing Methods for the Retrieval of Optical Water Constituents from optically-complex waters (northwestern Baltic Sea and Dublin Bay)’, May 2025, National Centre for Geocomputation, Maynooth University.

Main supervisor for:

- **Dmytro Kyrlyiuk** defended his ‘Baltic Sea from Space - the use of ocean color data to improve our understanding of ecological drivers across the Baltic Sea basin - algorithm development, validation and ecological applications’ on 27 September 2019. Co-supervisors: Prof. Steve Lyon (The Ohio State University).
- **Elina Kari** defended her thesis ‘Light conditions in seasonally ice-covered waters’ on 7 September 2018. Co-supervisors: Prof Matti Leppäranta (Physical Oceanography), Helsinki University.
- **Krista Alikas**, Tartu Observatory (TO), Estonia, defended her thesis ‘From research to applications: monitoring optically complex waters with MERIS/ENVISAT data’ on 13 May 2016. I was acting principal supervisor during the second part of Krista’s PhD. Principal supervisor: Dr Anu Reinart, TO.
- **Jose Beltrán-Abaunza** defended his PhD ‘Remote sensing in optically complex waters - water quality assessment using MERIS data on 29 January 2016. Co-supervisor: Dr Carsten Brockmann, Brockmann Consult BC, Germany.
- **Therese Harvey** defended her thesis ‘Bio-optics, satellite remote sensing and Baltic Sea ecosystems - Applications for monitoring and management’ on 2 October 2015. Co-supervisors: Dr. Petra Philipson, Brockmann Geomatic AB, Sweden and Dr. Jakob Walve, DEEP, SU.

Hosting of international post docs

- **Dr E. Morozov**, NIERSC, St. Petersburg, Russia, 1-year post doc in 2014 (funded by FP7 EuRuCAS). • Dr Monika Wozniak, from University of Gdansk, Poland; funded by the Swedish Institute (joint application) joint my research group from Sept. 2013 to May 2014.
- **Dr Selima Ben Mustapha** from Tunesia & Canada: research engineer (August 2012-July 2014); funded by EU FP7 WaterS & EU FP7 EuRuCAS & by ESA.
- **Dr A. Hommersom**, Water Insight, The Netherlands, 1-year post doc during 2011, EU FP7 WaterS.

Recent Master students:

- **Lise Suchet**, AIX, Marseille, France (2024), funded by ERASMUS+
- **Vivien Holub**, Department of Physical Geography, Stockholm University (2024).
- **Vicky Bravo**, INSA, Lyon, France (2023), funded by ERASMUS+
- **Martin Allart**, INSA, Lyon, France (2022), funded by ERASMUS+
- **Noemi Marsico**, Department of Physical Geography, Stockholm University (2021).

PI for current and recent national research projects (full list of projects appended to this CV)

- Swedish National Space Agency (SNSA) and UK Space Agency project: 'Mapping Underwater Vegetation in Swedish Coastal Areas - Earth Observation in support of Blue Carbon Research', Space for Climate Observatory, SCO, programme (Dnr. 23/156, 2024-2025), PI: S. Kratzer & Sam Lavender (UK).
- Swedish Agency for Marine and Water Management (SwAM) project: 'Quality control of analysis methods for optical measurements in Swedish coastal waters' (Dnr. 3376-23; 2023-2024), PI: S. Kratzer.
- SNSA project: 'The use of OLC I Sentinel-3 data for assessing the effect of climate change in coastal and inland waters' (Dnr. 2022-00128, 2023-2026), PI: S. Kratzer.
- SNSA project: 'The use of Copernicus Sentinel-3 data for research and societal needs' (Dnr. 2021-00064, 2022-2024), PI: S. Kratzer.
- SNSA National Infrastructure project: 'Long-term operation of the AERONET-OC station Pålgrunden in Lake Vänern for validation of Sentinel-3 data' (Dnr. 61/17 & Dnr. 2021-00050; 2018- 2025, second phase), PI: S. Kratzer. The third stage is commissioned for 2026-2029.
- SwAM project: 'Framtagandet av nationella riktlinjer för marin bio-optiska mätningar inom det svenska övervakningsprogrammet' (Dnr. 130-20 & 538-21; 2020-2022), PI: S. Kratzer.
- Swedish National Space Board (SNSB) project: 'Ocean colour remote sensing in optically complex waters - moving from the ENVISAT to the Copernicus programme' (Dnr. 175/17; 2018-2020), PI: S. Kratzer.
- Stockholm University's strategic marine environmental program Baltic Ecosystem Adaptive Management, BEAM, coordinator: Professor Ragnar Elmgren. I was PI of the sub-project 'Bio-optical research for management - a collaborative effort between BEAM and ECOCHANGE' (2011-2020) funded by *formas*.

Recent coordination of and participation in international projects

- EU Interreg Nord project SEAmBOTH (2017-2020), my participation in the project was co-funded by the County Administration Norrbotten and the Swedish Agency for Marine and Water Management.
- ESA/ARGANS project: 'MERIS Validation and Algorithm 4th Reprocessing: MERIS Validation Team (MVT)' ref. 003-025, (2015-2020); PI for SU: S. Kratzer.
- EU FP7 WaterS Marie Curie Industry-Academia Partnerships and Pathways (IAPP), 2010-2014. Focus: Industry-Academia exchange, mobility; PI for SU: S. Kratzer. 18-months secondment to Brockmann Consult, Germany during 2012-2013.
- EU PI ESA/ESRIN project: Technical Assistance for the validation of MERIS products in lake Vänern and coastal waters of the north-western Baltic Sea (Sweden); 2008-2017.