

CURRICULUM VITAE

Name Sabine Hilt (nee Körner)
Birth date August 29, 1968
Nationality German
Marital status Married, two children (2003, 2009)

1 Education

2006 Habilitation and *venia legendi* in Ecology, Humboldt University, Berlin
1996 PhD, Institute of Biology, Humboldt University, Berlin
1992 Diploma in Biology, Humboldt University, Berlin

2 Professional experience

Since 01.2007 Senior Scientist, Leibniz-IGB Berlin (Germany)
10.2008 – 03.2009 Sabbatical, Wageningen University (The Netherlands)
11.2004, 03.2005 Research stays at Limnological Institute, University of Constance (Germany)
01.1999 – 12.2006 Research scientist, Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB), Berlin (Germany)
10.1998 – 12.1998 Research visit, National Institute of Water and Atmospheric Research (NIWA) Hamilton (New Zealand)
03.1996 – 09.1998 Post-doc Research Fellow, International Institute for Infrastructural, Hydraulic and Environmental Engineering (IHE) Delft (The Netherlands)
10.1992 – 02.1996 Research scientist and PhD student, Institute of Ecology, Humboldt-University Berlin (Germany)

3 Publications

Researcher ID: <http://www.researcherid.com/rid/C-4783-2011>

4 Awards and grants

2008 – 2009 Research visit grant, German Research Foundation (DFG)
2006 Selected participant 'ProFiL Program' preparing outstanding women of Berlin universities for leadership positions in science and higher education
2003 – 2006 Research and habilitation grant, Berlin Program for Women in Science
1998 Research visit grant, German Research Foundation (DFG)
1996 – 1997 Post-doc research grant, German Academic Exchange Service (DAAD)
1995 – 1996 PhD scholarship, Studienstiftung des deutschen Volkes

5 Member of scientific societies

Association for the Sciences of Limnology and Oceanography (ASLO), Botanical Society of Berlin and Brandenburg, German Limnological Society (DGL): 2001-2013 Head of Working Group „Shallow Lakes“, International Society of Limnology (SIL)

6 Successfully funded grants

- 05.2018 – 04.2021 German Research Foundation (DFG): *Regime shifts in freshwater ecosystems exposed to multiple stressors by increasing temperature, fertilizers and pesticides (CLIMSHIFT)* (PI, ~206,150 € incl. 1 PhD student)
- 01.2017 – 12.2018 Senatsverwaltung Berlin: *Bewertung des Müggelsees gemäß EU-Wasserrahmenrichtlinie mittels Makrophyten und Phytoplankton sowie Erhebung von Orientierungswerten gemäß der Oberflächengewässerverordnung des Bundes 2017-18* (PI, ~50,000 €)
- 01.2015 – 12.2016 Senatsverwaltung Berlin: *Biologische Bewertung des Großen Müggelsees (Berlin) auf Basis der Makrophyten und des Phytoplanktons gemäß EU-Wasserrahmenrichtlinie* (PI, ~8,000 €)
- 01.2016 – 12.2018 German Research Foundation (DFG): *Mismatch between periphyton and macrophyte development in spring: crucial for submerged macrophyte recolonization in eutrophic shallow lakes?* (PI, ~118,000 € incl. 1 PhD student)
- 07.2015 – 12.2019 German Research Foundation (DFG): Research Training Group "Urban Water Interfaces" (Speaker group; 4.5 Mill. € incl. 13 PhD students)
- 07.2014 – 06.2017 Leibniz-Graduate School: *IMPact-Vector: International Multidisciplinary Parasitology and Vector Biology* (~100,000 € incl. 1 PhD student)
- 03.2013 – 02.2016 Leibniz-Graduate School: *AQUALINK: Aquatic boundaries and linkages in a changing environment* (~90,000 € incl. 1 PhD student)
- 03.2013 – 02.2016 Leibniz-SAW „Pakt für Forschung und Innovation“: *LandScales: Connecting processes and structures driving the landscape carbon dynamics over scales* (~100,000 € incl. 1 PhD student)
- 06.2013 – 02.2014 Länderarbeitsgemeinschaft (LAWA) Wasser: Analyse der Entwicklung pelagischer und benthischer Bewertungskomponenten von Seen (60.000 €)
- 06.2011 – 12.2013 German Academic Exchange Service (DAAD): PPP Finland travel grant (6,000 €)
- 03.2011 – 09.2011 German Research Foundation (DFG): *Mismatch between periphyton and macrophyte development in spring: crucial for submerged macrophyte recolonization in eutrophic shallow lakes?* (co-PI, ~30,000 €)
- 01.2011 – 12.2011 Senatsverwaltung Berlin: *Biologische Bewertung des Großen Müggelsees (Berlin) auf Basis der Makrophyten und des Phytoplanktons gemäß EU-Wasserrahmenrichtlinie* (PI, ~17,000 €)
- 01.2010 – 12.2013 Leibniz-SAW „Pakt für Forschung und Innovation“: *TERRALAC: Aquatische-terrestrische Kopplung stabilisiert See-Ökosysteme im Klimawandel* in cooperation with TU Berlin and University Potsdam (PI, ~682,000 € incl. 5 PhD students)
- 04.2009 – 03.2012 German Research Foundation (DFG): *Allelopathic effects of submerged macrophytes on phytoplankton: In situ evidence, bacterial influence and new modes of action* (PI, ~118,000 € incl. 1 PhD student)
- 01.2009 – 12.2013 BMBF: *Entwicklung von nachhaltigen Managementstrategien für glaziale Seen Brandenburgs im Klimawandel* (subproject macrophytes: ~25,000 €)
- 12.2008 – 3.2009 German Research Foundation (DFG): Grant for research cooperation Wageningen University (The Netherlands) (~5,000 €)
- 05.2008 – 12.2008 Senatsverwaltung für Gesundheit, Umwelt und Verkehr Berlin: *Validierung der biologischen Bewertungsverfahren zu Phytoplankton und Makrophyten* (~10,000 €)
- 05.2007 – 12.2007 Senatsverwaltung für Gesundheit, Umwelt und Verkehr Berlin: *Validierung*

- der biologischen Bewertungsverfahren an Flusseen* (~13,000 €)
- 08.2007 German Research Foundation (DFG): Travel grant SIL conference Montreal (Canada) (~2,000 €)
- 05.2006 – 11.2006 Senatsverwaltung für Stadtentwicklung Berlin: *Praxistest zur Bewertung von Makrophyten in fünf Berliner Seen im Rahmen der Umsetzung der EU-Wasserrahmenrichtlinie* (PI, ~6,000 €)
- 08.2005 – 02.2006 Berliner Programm zur Förderung der Chancengleichheit von Frauen in Forschung und Lehre: Habilitationsbeendigungsstipendium (13,240 €)
- 08.2003 – 07.2005 Berliner Programm zur Förderung der Chancengleichheit von Frauen in Forschung und Lehre: Research grant (41,250 €)
- 10.2002 – 09.2003 Senatsverwaltung für Stadtentwicklung Berlin: *Rekonstruktion natürlich biozönotischer Referenzbedingungen in Kombination mit hydromorphologischen, hydraulischen und hydrochemischen Verhältnissen an Fließabschnitten der nordostdeutschen Tiefebene und Ermittlung von Entwicklungsmöglichkeiten, subproject: Paläolimnologische Untersuchungen*“ (~60,000 €)
- 04.1999 – 03.2002 German Research Foundation (DFG): *Wiederbesiedlung eines eutrophen Flachsees (Großer Müggelsee, Berlin) durch submerse Makrophyten und ihr Einfluss auf die litoral-pelagische Kopplung* (PI, ~170,000 €)
- 10.1998 – 12.1998 German Research Foundation (DFG): Research visit grant for stay at NIWA Hamilton (New Zealand) (~3,000 €)
- 03.1996 – 12.1997 German Academic Exchange Service (DAAD): Post-doc research grant for IHE-Delft (The Netherlands) (PI, ~40,000 €)
- 04.1995 – 02.1996 Studienstiftung des deutschen Volkes: PhD scholarship
- 10.1992 – 03.1995 Berlin-Forschung: „Untersuchungen an den Makrophytenbeständen in zwei Berliner Gewässern (Großer Müggelsee, Wuhle) – ein Beitrag zu deren Sanierung“ (PI, ~40,000 €)

7 Hosted Fellowships

- 12.2016 – 11.2017 Chinese Scholarship Council Fellowship to Prof. Dr. Liang He (Nanchang University, China): *Combined effects of periphyton shading and herbivory control submerged macrophyte biomass in crashing lakes.* (~17,000€)
- 03.2013 – 11.2013 Leibniz-IGB Fellowship in Freshwater Sciences to Dr. Bert Hidding (NIOO, The Netherlands): *Interactions between herbivory and periphyton drive regime shifts.* (~16,000 €)
- 02.2012 – 01.2013 DBU (Deutsche Bundesstiftung Umwelt) PhD grant to Algirdas Svanys (Klaipeda University, Lithuania): *Effects of the allelopathically active macrophyte *Myriophyllum spicatum* on the potentially toxic cyanobacterium *Microcystis aeruginosa*.* (~14,000 €)
- 05.2011 – 07.2011 Leibniz-IGB Fellowship in Freshwater Sciences to Prof. Dr. Mike Vanni (Miami University, USA): *Terrestrial carbon by emerging insects from shallow lakes at differing regimes.* (~10,000 €)
- 03.2011 – 08.2011 Leibniz-IGB Fellowship in Freshwater Sciences to Dr. Sarian Kosten (Wageningen University, The Netherlands): *Effect of climate warming on CO2 emissions from shallow lakes at differing regimes.* (~12,000 €)
- 05.2010 – 04.2011 Chinese Scholarship Council Fellowship to Dr. Xuexiu Chang (Yunnan University, China): *Allelopathic effects of submerged macrophytes on*

	<i>cyanobacteria</i> . (~14,000 €)
02.2010 – 01.2011	Leibniz-IGB Fellowship in Freshwater Sciences to Dr. Jari Syväranta (Univ. Jyväskylä, Finland): <i>Analysis of stable isotopes in food webs: δD as novel tracer to elucidate temporal variation of allochthonous carbon subsidy to shallow lakes at differing regimes</i> . (~25,000 €)
07.2005 – 06.2008	NaFöG PhD grant to Nadine Bauer: <i>Influence of allelopathically active substances on phytoplankton and bacteria</i> . (~36,000 €)
06.2005 – 07.2005	DFG research grant to Prof. Mary Ghobrial (National Institute of Oceanography and Fisheries, Alexandria, Egypt): <i>Influence of phosphate limitation on the sensitivity of phytoplankton to allelochemicals</i> . (4,600 €)
09.2002 – 10.2002	NIWA research travel grant to Toni Dugdale (NIWA Hamilton, New Zealand): <i>Influence of roach on <i>Potamogeton pectinatus</i></i> . (~3,000 €)
05.2000 – 07.2000	IGB research grant to Dr. Sabine Schreiber (University of Melbourne, Australia): <i>Influence of invertebrates on submerged macrophytes</i> . (~3,000 €)

8 Editorial work and peer-review activities for research organisations and journals

since 2012	Editorial board member Aquatic Botany
since 2002	Czech Science Foundation (GAČR) , Deutsche Bundesstiftung Umwelt (DBU), German Research Foundation (DFG), Research Foundation Flanders (FWO), Netherlands Organisation for Scientific Research (NWO), Kennis voor Klimaat, Natural Sciences and Engineering Research Council of Canada (NSERC), Swedish Research Council (FORMAS)
since 1998	Aquatic Botany, Aquatic Ecology, Aquatic Sciences, Ecological Engineering, Ecology, Ecosystems, Environmental Management, Environmental Pollution, Environmental Science and Technology, Fresenius Environmental Bulletin, Freshwater Biology, Fundamental and Applied Limnology, Global Change Biology, Harmful Algae, Hydrobiologia, International Review of Hydrobiology, International Journal of Lakes and Rivers, Inland Waters, Journal of Applied Ecology, Journal of Ecology, Journal of Environmental Quality, Journal of Phycology, Journal of Plant Physiology, Limnetica, Limnologica, Limnology & Oceanography, Marine Environmental Research, NZ Journal of Freshwater & Marine Research, Oecologia, Oikos, Pesticide Biochemistry and Physiology, Phytton, Rostocker Meeresbiologische Beiträge, Scientific Reports, Science of the Total Environment, Water Research

9 Organisation of workshops and special sessions

2017	Workshop on “Aktuelle Makrophytenentwicklung in deutschen Gewässern: Prognosen und Handlungsbedarf“, Limnological station of the TU Munich.
2001 – 2013	DGL conferences: Workshops of the DGL-working group shallow lakes
2013	DGL conference Potsdam: Organizing committee
2012	ASLO meeting Otsu (Japan): Special Session “Terrestrial subsidies and the resilience of aquatic ecosystems” with J. Richardson.
2011	Special session “Makrophyten”, DGL conference Munich.
2011	Water Research Horizon Conference (German Water Science Alliance), Berlin:

	Workshop on “Carbon dynamics in coupled aquatic-terrestrial ecosystems”.
2009 – 2011	TERRALAC workshops Berlin, 2009, 2010, 2011
2010	4 th conference of the EPCN (European Pond Conservation Network), Erkner, Scientific committee
2009	ASLO meeting Nice (France): Special Session “Macrophyte-Centered Biotic Interactions in Aquatic Habitats” with P. Lombardo.
2008	DGL conference Constance: Special session “Struktur und Funktion des Litorals” with K.O. Rothhaupt.
2006	DGL conference Dresden: Special session “Benthisch-pelagische Kopplung” with E. Gross.
2005	DGL conference Karlsruhe: Special session “Makrophyten” with E. Gross,
2005	DGL-working group shallow lakes: Workshop on “Probleme mit submersen Makrophyten in Flachseen Deutschlands - Aktueller Stand und Erfahrungsaustausch”, Limnological station of the TU Munich.
2004	DGL conference Potsdam: Special session “Wem nutzen (submerse) Makrophyten?” with E. Gross.
2002	DGL conference Braunschweig: Special session “Makrophyten” with E. Gross.

10 Lecturing

DFG Research Training Group “Urban Water Interfaces” IGB/TU Berlin

Lectures Core course on Aquatic Ecology, Organiser and Lecturer, 5 days (SS 2016)

PhD Summer school “Lake Restoration” University of Southern Denmark/IGB

Lectures Management options for submerged macrophytes during lake restoration, Lecturer, 2 h (SS 2014)

Humboldt University Berlin (Germany), Institute of Biology

Field Practicals Taxonomisch-ökologisches Praktikum, Organiser and Lecturer, 4 SWS, Biological station Hiddensee (yearly, SS 2006-2017)

Taxonomisch-ökologisches Praktikum, Co-organiser and Lecturer, 4 SWS, Botanical-plant sociological part, Brückentin (SS 2000, SS 2001, SS 2002)

Lectures Ecology of aquatic macrophytes, Organiser and Lecturer, 2 SWS (WS 2002/03, WS 2003/04)

Alternative stable states in ecosystems, during Habilitation (WS 2005/06)

Seminars Ecology of aquatic macrophytes, Organiser and Lecturer, 2 SWS (WS 2002/03)

Bistability in shallow lakes (SS 2001)

IHE-Delft (The Netherlands)

Field Practicals Indicator organisms in rivers, Assistant, 4 SWS (SS 1998, SS 1997)

Laboratory Practicals Microbiology, Assistant, 4 SWS (WS 1996/97, WS 1997/98)
Aquatic Ecology, Assistant, 4 SWS (SS 1997)

11 Supervision of PhD students

Marta Alirangues Mismatch between periphyton and macrophyte development in spring: crucial for submerged macrophyte recolonization in eutrophic shallow lakes? HU Berlin, since 01.2016.

Mikael Gillefalk Bank filtration affects lake water quality. TU Berlin, since 09.2015.

Jenny Vivas Munoz Impact of parasites on top-down control of periphyton in lakes. HU Berlin, since 07.2014 (co-supervision).

Garabet Kazanjian Primary production in shallow lakes of different plant dominance. HU Berlin, since 03.2013.

Cecile Perillon Effects of groundwater on macrophytes and periphyton. Potsdam University, 2017.

Betty Lischke Food web regulation under different forcing regimes in shallow lakes – synthesis and modelling. Potsdam University (co-supervision), 2016.

Algirdas Švanys Effects of the allelochemically active macrophyte *Myriophyllum spicatum* on the potentially toxic cyanobacterium *Microcystis aeruginosa*. Klaipeda University (Lithuania) (co-supervision), 2015.

Kristin Scharnweber The effect of structural complexity on ecological and evolutionary processes in shallow lake ecosystems. FU Berlin (co-supervision), 2013.

Soren Brothers Carbon gains, losses, and feedbacks in shallow, eutrophic lakes of phytoplankton and macrophyte dominance. Potsdam University, 2013.

Falk Eigemann Allelopathic effects of submerged macrophytes on phytoplankton: determining the factors of phytoplankton sensitivity and detection of new modes of action. FU Berlin, 2013.

Nadine Bauer Influence of allelopathically active substances on phytoplankton and bacteria. HU Berlin, 2011.

12 External PhD thesis committee

Annette Janssen A blooming business: Identifying limits to Lake Taihu's nutrient input. Wageningen University (The Netherlands), 2017.

Francisco Vasconcelos Effects of warming and browning on benthic and pelagic ecosystem components in shallow lakes. University of Umea (Sweden), 2017.

Jan Kuiper Making eco logic and models work. An integrative approach to lake ecosystem modelling. Wageningen University (The Netherlands), 2016.

Luuk van Gerven The ecology of ditches. A modelling perspective. Wageningen University (The Netherlands), 2016.

- Ann-Marie Rohlfis Rehabilitation of Snowy River: The influence of river regulation on dissolved organic carbon supply and utilisation. University of Technology Sydney (Australia), 2016.
- Nina Høj Christiansen Phosphate uptake by aquatic macrophytes at varying phosphorus availability. University of Southern Denmark, Odense (Denmark), 2014.
- Aldoushy Mahdy Top-down and bottom-up effects in shallow lake food webs with special emphasis on periphyton. FU Berlin, 2013.
- Annelies Veraart Denitrification in ditches, streams and shallow lakes. Wageningen University (The Netherlands), 2012.
- Veronika Huber Climate impact on phytoplankton blooms in shallow lakes. Potsdam University, 2009.

13 Supervision of master and diploma students

- Benjamin Wegner Consequences of a quagga mussel invasion in a shallow eutrophic lake. TU Berlin, since 9/2017.
- Anna Wolf Model simulations on causes and consequences of changing water quality in an oligo-mesotrophic lake ecosystem. Potsdam University, 2016.
- Ireen Werner Einfluss des Biozids Terbutryn auf die Photosyntheserate von *Myriophyllum spicatum* in unterschiedlichen Testsystemen. HU Berlin, 2014.
- Christine Assmann Top-down Kontrolle von Periphyton eines eutrophen Flachsees. HU Berlin, 2011.
- Anne Timler Steuerfaktoren der Epiphyton-Besiedlung in einem eutrophen Fluss-Seen-System. FU Berlin, 2009.
- Kay Brennecke Vergleich der benthischen Primärproduktion in Makrophyten- und Phytoplankton-dominierten Flachseen. Technische Fachhochschule Berlin, 2008.
- Eike Beutler *In situ* Nachweis allelopathischer Effekte von *Myriophyllum verticillatum* auf Phytoplankton. Ernst-Moritz-Arndt-Universität Greifswald, 2007.
- Ulrike Blaschke Ursachen saisonaler Dynamik allelopathischer Substanzen in *Myriophyllum verticillatum* L. und unterschiedlicher Sensitivität verschiedener Phytoplanktonarten. Universität Osnabrück, 2007.
- Ruth Müller Wirkung des Herbizids Metazachlor auf aquatische Makrophyten in Fließ- und Stillgewässer-Mesokosmen. FU Berlin, 2003.
- Ellen Roberts Periphyton in Lake Müggelsee: Its seasonal dynamics and shading effects on submerged macrophytes. HU Berlin, 2002.
- Jens Kroker Saisonale Dynamik des Periphytons im Großen Müggelsee und seine Beziehung zu potentiellen Steuerfaktoren. HU Berlin, 2001.
- Gwen Kyoburungi The effect of shock load on waste water treatment efficiency of duckweed-covered systems. IHE-Delft, 1998.

Getrud Lyatuu The influence of duckweed on the degradation of organic material in duckweed-covered domestic wastewater. IHE-Delft, 1997.

14 Supervision of bachelor students

Sylvia Lange Sensitivität verschiedener Phytoplanktonarten auf Tanninsäure. Beuth Hochschule für Technik Berlin, 2010.

Torsten Hust Einfluss von Fischpredation auf die Invertebratenbesiedlung im Epiphyton. Fachhochschule Bernburg, 2010.

15 Supervision of practical periods and internships

Simon Asmus Freiwilliges Ökologisches Jahr, 2017.

Anna Stelmecke Vergleich der Sedimentqualität des Müggelsees in Litoralbereichen mit unterschiedlichem Einfluss der Uferfiltration. TU Dresden, 2016.

Marie Kaniecki Einfluss unterschiedlicher Salzkonzentrationen auf die Isotopensignaturen von *Potamogeton pectinatus*. Universität Leipzig, 2016.

Domenik Schreier Test eines fluoreszenzbasierten Gerätes zur Messung von Periphyton-Biomassen im Freiland (Benthotorch). BTU Cottbus, 2014.

Henrike Lorenz Allelopathische Effekte submerser Makrophyten auf Cyanobakterien. Fachhochschule Eberswalde, 2012.

Sylvia Lange Wachstumsraten von Algenkulturen unter verschiedenen Parametern. Praktikumsarbeit, Beuth Hochschule für Technik Berlin, 2009.

Atila Öztürk Freiwilliges Ökologisches Jahr, 2008.

Annika Becker Entwicklung der Makrophytenvegetation in zwei kleinen Flachseen und Abschätzung des Eintrages partikulären organischen Materials aus dem terrestrischen Einzugsgebiet. Fachhochschule Eberswalde, 2007.

Max Klomdsorff Entwicklung einer Methode zur Nutzung eines Echolots für die Makrophytenkartierung in der Spree. Praktikumsarbeit im Rahmen des Freiwilligen Ökologischen Jahres, 2007.

Justyna Klęka Beeinflussung der Makrophytenentwicklung in der Spree durch Epiphyton. DBU-Stipendiatin, Universität Wrocław, 2007.

Ulrike Blaschke Einfluss von Stickstoff und Phosphor auf die saisonale Dynamik polyphenolischer Substanzen in *Myriophyllum verticillatum* L. Universität Osnabrück, 2005.

Toni Becker Einfluss herbivorer Wasservögel auf die Besiedlung des Müggelsees durch submerse Makrophyten. HU Berlin, 2002.

Sylvia Wicke Wiederansiedlung submerser Makrophyten auf unbesiedelten Sedimentflächen im Großen Müggelsee. HU Berlin, 2000.

Lilian Wijngaarden De relatieve groeisnelheden van bultkroos (*Lemna gibba* L.) op huishoudelijk afvalwater onder verschillende condities. IHE-Delft (The Netherlands), 1997.

16 Further skills

English and Dutch fluently spoken and written, Russian and French passive knowledge

Didactics for lecturers (TU Delft, The Netherlands, 60 credit hours, certificate)

Driving license, Scuba diving: IDD Open Water Brevet

Sabine Hills