## Curriculum Vitae

# Stefan W. Vogel, Ph.D. – Earth Sciences

Glaciology Tasmania

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### **Current:**

- Owner and Director at Glaciology Tasmania, Science, Education, Technology Leadership Training and Coaching Consultancy
- On Parental Leave

# **Key Skills**

- Project & Technology Development and Management, incl. grant writing, development of collaborations & budgets, scheduling, group organization, supervising, mentoring & coaching;
- Effective Presentation and Communication: track record in publishing, public speaking and web presentation, public outreach, multi-media, film & photography;
- Teaching and Mentoring, incl. Curriculum Development;
- Leadership Training incl. NLP coaching, clean language, negotiation & change training;
- Technical Skills in design and development of innovative research instrumentation, large scale infrastructure and logistic concepts, instrument maintenance;
- Professional certificates as carpenter, mechanical & metal working, heavy truck driving;
- Professional outdoor leadership expertise, incl. experience in mountaineering, work as climbing, ski, raft kayak, canyoning, business incentive instructor, organization and participation in worldwide research & recreational expeditions incl. Antarctica, Arctic, Europe, North, South America, Iceland & Russia; maintaining advanced medical certification as WMI-NOLS Wilderness First Responder.

# **Latest Projects**

Contract Consultant Work with European Union H2020 Framework

Contributions to the 2017 National Science Week in collaboration with TMAG, CCAMLR & Beaker Street Science and Logistic Support for the Antarctic Circumnavigation Expedition port call in Hobart Jan 2017 Organization of Tasmanian Science Film Festival 2016 and the Science Film Festival Roadshow for the National Science Week 2016.

Sustainable Living in an Urban Space Glaciology Tasmania is building a home. Not a regular home, its a home which is designed around sustainability and self-sufficiency in the centre of town.

## **Employments**

2015	self-employed – Glaciology Tasmania
2015	Parental Leave
2011 - 2015	Senior Ice Sheet Scientist at Australian Antarctic Division
2004 - 2010	various academic appointments in the United States
1995 - 2004	various research and teaching assistance positions
1993 - 1999	various positions in tourism, festival organization, business incentive & guiding
1991 - 1993	2-year apprenticeship as carpenter (Rottweil, Germany)
1989 - 1991	military service (Germany)
1984 - 1991	internship and working experience as a mechanic (TMF, Villingen Schwenningen, Germany)

# Education

- 2004 Ph.D. in Earth Science University of Santa Cruz, California USA
- 1998 Staatsexamen Geography and Physical Education, Albert-Ludwigs University, Freiburg, Germany
- 1993 Certification as carpenter
- 1989 Abitur, Leibniz-Gymnasium, Rottweil Germany (graduation from Gymnasium High School)

# **Publications & Presentations:**

20 Publications (15 peer-review), 6 reports, 1 white paper, 1 book contribution, >85 int. conference abstracts, >100 presentations. Google Scholar<sup>3</sup>: 914 citations, H-index: 12

## Languages

German (mother language), English (fluent written and spoken), French (basic), Spanish (basic)

# CV – Details

# Dr. Stefan W. Vogel

# **Academic Appointments**

June 2011 – July 2015 Sen. Ice Sheet Scientist, Australian Antarctic Division, Kingston, Tas, Australia

June 2011 – 2016 Adjunct Researcher, Antarctic Climate and Ecosystem – CRC, Hobart, Tas, Australia

June 2010 – 2012 Adjunct Research Faculty, Geosciences San Francisco State University

April 2005 - October 2010 Research Associate, Geology and Environmental Geosciences,

Northern Illinois University, DeKalb, Illinois

January 2005 – January 2009 courtesy appointment as Research Fellow in the Dept. of Earth Sciences, UCSC

January 2004 – March 2005 Postdoctoral Researcher – Byrd Fellowship at the Byrd Polar Research Center, Ohio State University, Columbus, Ohio

#### Education

March 2004 Ph.D - Earth Sciences, Dept of Earth Sciences, University of California - Santa Cruz,

Thesis: The Basal Regime Of The West-Antarctic Ice Sheet - Interaction Of Subglacial Geology

With Ice Dynamics; January 2002 - Advancement to candidacy

July 2000 - March 2004 Ph.D. student in Earth Science with Dr. S. Tulaczyk,

(Dept. of Earth Sciences, University of California - Santa Cruz)

August 1999 - June 2000 Ph.D. student in Earth Sciences with Dr. S. Tulaczyk,

(Dept. of Geological Sciences, University of Kentucky)

October 1998 - July 1999 medical student (Albert-Ludwigs University, Freiburg, Germany)

1998 Staatsexamen (equivalent to combined Master's) in Geography and Physical Education

Thesis: Snow Cover Dynamics and One-Dimensional Energy Fluxes at a Site in the Schwarzwald (Blackforest; Germany).

Institute of Physical Geography (IPG), Albert-Ludwigs Universität, Freiburg, Germany

November 1998 Staatsexamensprüfung in Physical Education (Final Examination)

May 1998 Staatsexamensprüfung in Geography (Final Examination)

1996 - 1998 Studying Mathematics (Albert-Ludwigs University, Freiburg, Germany)

1993 - 1998 Studying Geography and Physical Education

(Albert-Ludwigs University, Freiburg, Germany).

1993 Certification as carpenter

Abitur, Leibniz-Gymnasium, Rottweil Germany (graduation from Gymnasium High School)

## **Recent Professional Development**

Various leadership training courses: incl. resilience to change, advanced business coaching, NLP, Personal Efficiency Program (PEP), negotiation skills, science & non-violent communication, clean language, Chinese cultural awareness, mindfulness.

Concurrent advanced First Aid (2016): incl. Expedition Medicine (2012) & Wilderness First Responder (2010, 2013, 2016)

## Web-presence

http://glaciology-tasmania.weebly.com/ https://www.linkedin.com/in/stefanwvogel/

Further Details on Publications, Project involvement and Trainings:

https://glaciology-tasmania.weebly.com/uploads/1/3/3/7/13378825/vogel complete cv-2018-09.pdf

# **Publications**

## **Papers**

Craven, M., R. Warner, B. Galton-Fenzi, L. Herraiz-Borreguerro, S. W. Vogel and I. Allison (2014) *Platelet ice attachment to instrument strings beneath the Amery Ice Shelf*, Journal of Glaciology, 60 (220), 20, 2014 doi: 10.3189/2014JoG13J082.

http://www.ingentaconnect.com/content/igsoc/jog/2014/0000060/00000220/art00018

Carr S.A., S. W. Vogel, R. B. Dunbar, J. Brandes, C.T. Mills, J.R. Spear, R. Levy, T. R. Naish, R. D. Powell, S. G. Wakeham, K. W. Mandernack (2013) *Bacterial Abundance and Composition in marine sediments beneath the Ross Ice Sheet, Antarctica*, Geobiology, 1(4):377-95. doi: 10.1111/gbi.12042. <a href="http://onlinelibrary.wiley.com/doi/10.1111/gbi.12042/abstract">http://onlinelibrary.wiley.com/doi/10.1111/gbi.12042/abstract</a>

Gary S. Wilsona, R.H. Levy, T.R. Naish, R.D. Powell, F. Florindo, C. Ohneiser, L. Sagnotti, D.M. Winter, R. Cody, S. Henrys, J. Ross, L. Krissek, F. Niessen, M. Pompillio, R. Scherer, B.V. Alloway, P.J. Barrett, S. Brachfeld, G. Browne, L. Carter, E. Cowan, J. Crampton, R.M. DeConto, G. Dunbar, R. Dunbar, H.von Eynatten, C. Gebhardt, G. Giorgetti, I. Graham, M. Hannah, D. Hansaraj, D.M. Harwood, L. Hinnov, R.D. Jarrard, L. Joseph, M. Kominz, G. Kuhn, P. Kyleh, A. Laufer, W.C. McIntosh, R. McKay, P. Maffioli, D. Magens, C. Millan, D. Monien, P. Morin, T. Paulsen, D. Pollard, J.I. Raine, C. Riesselman, S. Sandroni, D. Schmitt, C. Sjunneskog, P. Strong, F. Talarico, M. Taviani, G. Villae, S. Vogel, T. Wilch, T. Williams, T.J. Wilson, S. Wise (2012) Neogene tectonic and climatic evolution of the Western Ross Sea, Antarctica – chronology of events from the AND-1B drill hole. Global and Planetary Change, 96-97, pages 189, 10.1016/j.gloplacha.2012.05.019. http://www.sciencedirect.com/science/article/pii/S0921818112001038

Naish, T., Powell, R., Levy, R., Krissek, L., Niessen, F., Pompilio, M., Scherer, R., Talarico, F., Wilson, G., Wilson, T., Browne, G., Carter, C., Cody, R.,,, Cowan C., Crampton, J., Dunbar, G., Dunbar, N., Florindo, F., Gebhardt, C., Graham, I., Hannah, M., Harwood, D., Hansaraj, D.,, Henrys, S., Helling, D., Kuhn, G., Kyle, P., Läufer, A., Maffioli, P., Magens, D., Mandernack, K., McIntosh, W., McKay, R., Millan, C., Morin, R., Ohneiser, C., Paulsen, T., Persico, D., Reed, J.,, Ross., J., Raine, I., Schmitt, D., Sagnotti, L., Sjunneskog, C., Strong, P., Taviani, M., Vogel, S., Wilch, T., Williams, T., Winter, D. (2009) Obliquity-paced Pliocene West Antarctic ice sheet oscillations. Nature, 458, 7236, pages 322-328. http://www.nature.com/nature/journal/v458/n7236/full/nature07867.html

Vogel, S.W. (2009). A lesson learned from the past: On the shape of core catcher holders for drilling sediment laden ice. Journal of Glaciology 55, 189, pages 188-190. http://www.ingentaconnect.com/content/igsoc/jog/2009/0000055/00000189/art00020

Lanoil B., M. Skidmore, S. Han, W. Foo, S.W. Vogel, S. Tulaczyk, and H. Engelhardt (2009). *A microbial community beneath the West Antarctic Ice Sheets*, Environmental Microbiology, doi:10.1111/j.1462-2920.2008.01831.x, <a href="http://onlinelibrary.wiley.com/doi/10.1111/j.1462-2920.2008.01831.x/epdf">http://onlinelibrary.wiley.com/doi/10.1111/j.1462-2920.2008.01831.x/epdf</a>

Vogel, S.W., R.D. Powell, I. Griffith, K. Anderson, S. A. Schiraga and T. Lawson (2009) Subglacial Environment Exploration- Concept and Technological Challenges for the Development and Operation of a Sub Ice ROV'er and Advanced Sub-Ice Instrumentation for Short and Long-Term Observations. The IEEE/OES AUV 2008 Conference on Polar AUVs, October 13-14, 2008, Woods Hole, Ma, USA. <a href="http://ieeexplore.ieee.org/xpl/abstractAuthors.jsp?reload=true&arnumber=5290528">http://ieeexplore.ieee.org/xpl/abstractAuthors.jsp?reload=true&arnumber=5290528</a>

Vogel, S.W. (2008), *Fire and Ice*, Nature Geoscience, doi 10.1038/ngeo117, pages 91-92. http://www.nature.com/ngeo/journal/v1/n2/abs/ngeo117.html

Vogel, S.W. (2007) Subglacial Environments - Potential For AUV And ROV Operation In A Sub Ice Environment. In Collins, K and Griffiths, G. (eds) AUV Science in Extreme Environments. SUT London, Proceedings of the Workshop on AUV Science in Extreme Environments, 11-13th April 2007, Scott Polar Research Institute, Cambridge, UK.

Vogel S.W., R.D. Powell, I. Griffith, K. Anderson, T. Lawson, S.A. Schiraga, T. Lawson (2007). *Ice-Borehole ROV- A New Tool For Subglacial Research*. In Collins, K and Griffiths, G. (eds) AUV Science in Extreme Environments. SUT, London, Proceedings of the Workshop on AUV Science in Extreme Environments, 11-13th April 2007, Scott Polar Research Institute, Cambridge, UK.

Vogel, S.W. and S. Tulaczyk, (2006). *Ice-dynamical constraints on the existence and impact of subglacial volcanism on West Antarctic ice sheet stability*. Geophysical Research Letters 33, L23502, doi:10.1029/2006GL027345. <a href="http://onlinelibrary.wiley.com/doi/10.1029/2006GL027345/epdf">http://onlinelibrary.wiley.com/doi/10.1029/2006GL027345/epdf</a>

Vogel, S.W., S. Tulaczyk, S.P. Carter, P. Renne and B. Turrin (2006). *Geologic constraints on the existence, distribution and impact of West Antarctic subglacial volcanism*. Geophysical Research Letters. 33, L23501. doi:10.1029/2006GL027344. http://onlinelibrary.wiley.com/doi/10.1029/2006GL027344/epdf

Csatho, B., Y. Ahn, T. Yoon, C. J. Van der Veen, S.W. Vogel, G.S. Hamilton, D. Morse, B.E. Smith, and B. Spikes (2005). *Icesat Measurements Confirm Complex Patterns Of Elevation Change On Siple Coast Ice Streams, Antarctica*. Geophysical Research Letters, 32 (23), L23S04, doi: 101029/2005GL024289. http://onlinelibrary.wiley.com/doi/10.1029/2005GL024289/epdf

Vogel, S.W., S. Tulaczyk, B. Kamb, H. Engelhardt, F. Carsey, A. Behar, A. Lane and I. Joughin (2005). *Subglacial Conditions During And After Stoppage Of An Antarctic Ice Stream: Is Reactivation Imminent.* Geophysical Research Letters, 32 (14), L14502, doi:10.1029/2005GL022563. http://onlinelibrary.wiley.com/doi/10.1029/2005GL022563/epdf

McGillivary, P., G.D'Spain, T. Boyd, D. Doolittle, S.W. Vogel and H-W. Schenke (2005). *Auvs For ANSWRS - Antarctic Studies Of The Western Ross Sea*. Proceedings of Oceans 2005 MTS/IEEE, Washington DC, Sept. 17-23, 2005, Marine Technology Society and the Oceanic Engineering Society of IEEE. pp.1305-1310 Vol. 2. http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=1639935&isnumber=34367

Vogel, S.W. (2004), *The Basal Regime Of The West-Antarctic Ice Sheet - Interaction Of Subglacial Geology With Ice Dynamics*. Ph.D. thesis, Earth Sciences, University of California - Santa Cruz.

Vogel, S.W., S. Tulaczyk, and I. Joughin (2003), *Distribution Of Basal Melting And Freezing Beneath Tributaries Of Ice Stream C, West Antarctica*. Proceedings of Int. Symposium on Fast Glacier Flow, June 10 -14, 2002, Yakutat, Alaska, USA, Annals of Glaciology, 36, 273-282. http://www.ingentaconnect.com/content/igsoc/agl/2003/00000036/00000001/art00037?crawler=true

Vogel, S.W. (2002): *Usage Of High-Resolution Landsat 7 Band 8 For Single-Band Snow-Cover Classification*. Proceedings of the 4th Int. Symposium on Remote Sensing in Glaciology, June 4-8, 2001, College Park, Maryland, USA, Annals of Glaciology, 34, 53-57. http://www.ingentaconnect.com/content/igsoc/agl/2002/00000034/00000001/art00008

Vogel, S.W. & C. Schneider (2000): *One Dimensional Energy Fluxes At A Site In The Schwarzwald (Black Forest; Germany)*. Proceedings of the 14th Symposium on Boundary Layers and Turbulences - August 7-11, 2000, AMS, 2000.

Vogel, S. (1997): Vertikale Wärmeflüsse Und Schneedeckenentwicklung Im Winter 1996/97 Am Schauinsland Bei Freiburg. Wissenschaftliche Arbeit zum Staatsexamen für das Lehramt an Gymnasien in Baden-Württemberg, Institut für Physische Geographie der Albert-Ludwigs-Universität Freiburg. Betreuer: Gossmann, Schneider

#### Reports

Vogel S.W. et al. (2013) Winter Over Science Opportunities in Glaciology, internal Report submitted to AAD Chief scientist.,

Powell, R.P. and S.W. Vogel (2009) Antarctic Drilling - Antarctic Sub-Ice Geological Coring and Drilling in Walton, A.W., W. Clyde, S. Colman, S. Hickman, C. Koeberl, K.H. Miller, J. Shervais (2009) The Future of Continental Scientific Drilling: An Us Perspective. Workshop report Future of Continental Scientific Drilling: An Us Perspective Workshop June 3-5, 2009, Denver, Co, USA

M. Pompilio, N. Dunbar, C. Gebhardt, D. Helling, G. Kuhn, P. Kyle, R. Mckay, F.Talarico, S. Tulaczyk, S.W. Vogel and T. Wilch, (2007), 6 - Petrology and geochemistry in Naish, T. R., Powell, R.D, Levy, R.H. & the ANDRILL-MIS Science Team (2007), Initial Science Results from AND-B, ANDRILL McMurdo Ice Shelf Project, Antarctica, Terra Antartica.

Contribution to Chapter 6:

S.W. Vogel, Chapter 6.5 Carbonate Geochemistry

S.W. Vogel and S. Tulaczyk, Chapter 6.6 Porewater Geochemistry

Dunbar, G.B, Niessen, F., Vogel, S., Mandernack, K., Krissek, L., Carter, L., Cowan, E., Wilch, T., Peng, C., Strong, P., Scherer, R., Sjunneskog, C., Winter, D., McKay, R., Talarico F. and Pompilio, M., (2007), 3.0 Late-Pleistocene to Holocene strata from soft sediment coring at the AND-1 site in Naish, T. R., Powell, R.D, Levy, R.H. & the ANDRILL-MIS Science Team (2007), *Initial Science Results from AND-B, ANDRILL McMurdo Ice Shelf Project, Antarctica*, Terra Antartica.

Contribution to Chapter 3:

S.W. Vogel and S. Tulaczyk, Chapter 3.7 Porewater Geochemistry

Tulaczyk, S., D.H. Elliot, S.W. Vogel, R.D. Powell, J.C. Priscu and G.D. Clow (2005). FASTDRILL: *Interdisciplinary Polar Research Based On Fast Ice-Sheet Drilling*. Workshop report on Interdisciplinary Polar Research Based on Fast Ice-Sheet Drilling, October 3-5, 2002, University of California Santa Cruz.

Vogel S.W. (2005). *Appendix IV- Fast-Access Hot-Water Drilling*. In Tulaczyk, S., D.H. Elliot, S.W. Vogel, R.D. Powell, J.C. Priscu and G.D. Clow (2005). FASTDRILL: *Interdisciplinary Polar Research Based On Fast Ice-Sheet Drilling*. Workshop report on Interdisciplinary Polar Research Based on Fast Ice-Sheet Drilling, October 3-5, 2002, University of California Santa Cruz.

# **White Papers**

Vogel S.W. (2009) Technological and logistical requirements, challenges and possible solutions for a project to investigate the subglacial environment at the interphase between West-Antarctica and the Antarctic Ocean. White Paper submitted as part of Budget negotiations of the WISSARD Project with NSF April 25, 2009.

#### **Book Contributions**

Brigham-Grette, J, Haug, Gerald and the Climate Working Group. (2007). Climate Dynamics and Global Environments: A community vision for the next decade in ICDP, In Ulrich Harms, Christian Koeberl and Mark D. Zoback (editors), Continental Scientific Drilling: a decade of progress, and challenges for the Future, Springer Berlin Heidelberg New York, pg. 53-94.

#### **Abstracts**

- Liu Y., X Cheng, S Vogel, C Cheng (2014) A remote sensing based ice-shelf crevasse detection and analysis: a case study on the Amery Ice Shelf, East Antarctica. XXXIII SCAR Meeting, Auckland, NZ, August 23 –Sept 3, 2014
- Evans, E. S.W. Vogel (2014) Amery Ice Shelf melt remote sensing based melt water classification on the Amery Ice Shelf using 2014 Landsat-8 imagery. 2014 ACE CRC Symposium, June 4-5, 2014, Hobart, Tas, Australia
- Vogel, S. W., A. Fraser, P. Heil, R. Massom, N. Young, M. Craven (2013) *East Antarctic Surface Melting Biggest 21st century sea-level change threat?*, International Symposium on changes in glaciers and ice sheets: observations, modelling and environmental interactions, Beijing, July 28 August 2, 2013
- Vogel, S. W., A. Fraser, P. Heil (2013) *Surface melting and melt features on the Amery Ice Shelf implications for ice shelf, ice sheet stability*, International Symposium on changes in glaciers and ice sheets: observations, modelling and environmental interactions, Beijing, July 28 August 2, 2013
- Vogel, S. W., A. Fraser, P. Heil, B. Galton-Fenzi, D. Alexander (2013) *Ice Dolines in East Antarctica ice-ocean interactions from surface melt water drainage events*, International Symposium on changes in glaciers and ice sheets: observations, modelling and environmental interactions, Beijing, July 28 August 2, 2013
- Vogel, S. W., M. Craven, R. Warner, L. Herraiz-Borreguero and B. Galton-Fenzi (2013) *Platelet ice and marine ice layer formation processes beneath the Amery Ice Shelf*, International Symposium on changes in glaciers and ice sheets: observations, modelling and environmental interactions, Beijing, July 28 August 2, 2013
- Vogel, S. W., R. Warner, S. Tyler, A. Christensen, M. Craven, B. Galton-Fenzi and L. Herraiz-Borreguero (2013-withdrawn) *A year in the melt zone Preliminary Results from a year-long temperature record from the Amery Ice Shelf using Fibre Optic-based Distributed Temperature Sensing*, International Symposium on changes in glaciers and ice sheets: observations, modelling and environmental interactions, Beijing, July 28 August 2, 2013
- Warner, R. S. W. Vogel, M. Craven, A. Elcheikh, A. Christensen, A. Treverrow, S. Donoghue, J. Ridgen, K. Brunt, S. Cann, D. Tulloh, S. Tyler, I. Allison and B. Galton-Fenzi (2013) *Distributed Temperature Logging on the Amery Ice Shelf Challenges and Scientific Opportunities*, International Symposium on changes in glaciers and ice sheets: observations, modelling and environmental interactions, Beijing, July 28 August 2, 2013
- Vogel S.W. (2013, invited) representing AAD-CPC, ACECRC, IMAS & UTAS cryosphere program Hobart Tasmania, East Antarctica's vulnerability and response to global Climate change Hobart (Australia) based contribution to understanding the cryospheric response to 21st century climate change. Ice in Motion workshop, Beijing Normal University, July 26-27, 2013
- Vogel, S. W., A. Fraser, P. Heil, B. Galton-Fenzi, D. Alexander (2013) *Ice Dolines in East Antarctica ice-ocean interactions from surface melt water drainage events*, Davos Atmosphere Cryosphere Assembly 2013, Davos, Switzerland July 8-12, 2013
- Vogel, S. W., A. Fraser, P. Heil (2013) Surface melting and melt features on the Amery Ice Shelf implications for ice shelf, ice sheet stability, Davos Atmosphere Cryosphere Assembly 2013, Davos, Switzerland July 8-12, 2013
- Vogel, S. W., A. Fraser, P. Heil, R. Massom, N. Young, M. Craven (2013) *East Antarctic Surface Melting Biggest 21st century sea-level change threat?*, Strategic Science in Antarctica Joint Australian and New Zealand conference, Hobart, Tas, June 24-26, 2013
- Vogel, S. W., A. Fraser, P. Heil, B. Galton-Fenzi, D. Alexander (2013) *Ice Dolines in East Antarctica ice-ocean interactions from surface melt water drainage events*, Strategic Science in Antarctica Joint Australian and New Zealand conference, Hobart, Tas, June 24-26, 2013
- Vogel, S. W., A. Fraser, P. Heil (2013) Surface melting and melt features on the Amery Ice Shelf implications for ice shelf, ice sheet stability, Strategic Science in Antarctica Joint Australian and New Zealand conference, Hobart, Tas, June 24-26, 2013
- Vogel, S. W., R. Warner, S. Tyler, A. Christensen, M. Craven, B. Galton-Fenzi and L. Herraiz-Borreguero (2013) A year in the melt zone Preliminary Results from a year-long temperature record from the Amery Ice Shelf using Fibre Optic-based Distributed Temperature Sensing, Strategic Science in Antarctica Joint Australian and New Zealand conference, Hobart, Tas, June 24-26, 2013

- Warner, R. S. W. Vogel, M. Craven, A. Elcheikh, A. Christensen, A. Treverrow, S. Donoghue, J. Ridgen, K. Brunt, S. Cann, D. Tulloh, S. Tyler, I. Allison, and B. Galton-Fenzi (2013) *Distributed Temperature Logging on the Amery Ice Shelf Challenges and Scientific Opportunities*, Strategic Science in Antarctica Joint Australian and New Zealand conference, Hobart, Tas, June 24-26, 2013
- Roberts, J.L., R.C. Warner, D.A. Young, J.S. Greenbaum, M.J. Siegert, D.D. Blankenship, T.D. van Ommen, A.P. Wright, A.M. Le Brocq, D.M. Schroeder, G. Ng, C. Grima, N.W. Young and S.W. Vogel (2013) *ICECAP revealing the hidden landscape of East Antarctica*, Strategic Science in Antarctica Joint Australian and New Zealand conference, Hobart, Tas, June 24-26, 2013
- Craven, M., R.C. Warner, B.K. Galton Fenzi, L. Herraiz-Borreguero, S.W. Vogel, I. Allison (2013) *Platelet ice attachment to instrument strings beneath the Amery Ice Shelf*, Strategic Science in Antarctica Joint Australian and New Zealand conference, Hobart, Tas, June 24-26, 2013
- Vogel, S.W. (2014) Surface melting and melt features on the Amery Ice Shelf implications for ice shelf, ice sheet stability CLIVAR WGOMD SOP Workshop on Sea-Level Rise, Ocean/Ice Shelf Interactions and Ice Sheets, February 20, 2013 Hobart, Tas, Australia
- Vogel, S. W., J.L. Roberts, R.C. Warner, N.W. Young, A.P. Wright, D.A. Young, D.M. Schroeder, J.L. Bamber, J.A. Dowdeswell, A.J. Payne, D.D. Blankenship, T.D. van Ommen and M.J. Siegert (2012 withdrawn) *Sensitivity of subglacial hydrology in the Aurora Subglacial Basin to ice thickness perturbations* IGS conference on Glaciers and ice sheets in a warming climate, 25-29 June, 2012, Fairbanks, AK, USA
- Warner, R., M. Craven, B. Galton-Fenzi, A. Elcheikh, A. Christensen, and Stefan Vogel (2012) *Distributed temperature sensing in the Amery Ice shelf and the sub ice shelf ocean* FRISP 26th International Forum for Research into Ice Shelf Processes, Utö, Sweden, June 12-14 2012
- Vogel, S.W. M. Craven, I. Allison, B. Galton Fenzi, L. Herriaz-Berreguero, J. Hunter, A. Treverrow, R. Warner and M.J.M Williams (2012) *AMISOR a decade of ice-ocean interaction and ice shelf evolution observations* Annual Meeting of the IGS Snow and Ice Research Group of New Zealand, 13-15 February 2012, Twizel, New Zealand
- Vogel, S.W. M. Craven, I. Allison, B. Galton Fenzi, L. Herriaz-Berreguero, J. Hunter, A. Treverrow and R. Warner (2011) Sub Ice Environments Linkages and opportunities for ocean observing systems and the wider cryosphere and ocean science community IMOS New Zealand Australia Symposium in Ocean Observing and Data Management, 5-6 December 2011, Hobart, Tas, Australia
- Craven, M., I. Allison, B. Galton Fenzi, L. Herriaz-Berreguero, J. Hunter, A. Treverrow, R. Warner and S.W. Vogel (2011) *AMISOR Development and opportunities for ice integrated ocean observing systems* IMOS New Zealand Australia Symposium in Ocean Observing and Data Management, 5-6 December 2011, Hobart, Tas, Australia
- Williams, M. S. W. Vogel, P. Heil, P. Langhorne, M. Craven (2011) *Sea ice, ice shelves and ice-ocean interaction*. IMOS New Zealand Australia Symposium in Ocean Observing and Data Management, 5-6 December 2011, Hobart, Tas, Australia
- Vogel, S.W. (2011) Subglacial Environments Challenges and Technical Developments Towards A Systematic Study IUGG Meeting, June 28 July 7, 2011, Melbourne, Vic, Australia.
- Vogel, S.W. (2010) Subglacial Instrumentation A Vision for Future Subglacial Observing Systems, IPY Oslo Science Conference, June 8-12, 2010, Oslo Norway.
- Vogel, S.W. and R.D. Powell (2010) *Instrumentation for Antarctica subglacial environments and its potential role for the wider ocean observatory community,* EGU-spring meeting, May 3-7, 2010, Vienna, Austria
- Vogel, S.W. (2010) On the role of subglacial bio/geochemical processes in global biogeochemical cycles, potential ocean fertility contribution Results from Kamb Ice Stream. Abstract submitted to the AGU-Chapman conference on the Exploration and Study of Antarctic Subglacial Aquatic Environments (SAE) Baltimore, Maryland USA, 15–17 March 2010
- Vogel, S.W., R.D. Powell, I. Griffith, T. Lawson, K. Anderson, S.A. Schirtoga, G.Ludlam and J. Oen (2009) *Instrument developments for chemical and physical characterization, mapping and sampling of extreme environments (Antarctic sub ice environment)*. AGU Fall meeting 2009, December 14-18, 2009, San Francisco, Ca USA
- Vogel, S.W. (2009) On the effect of sample recovery on porewater and core chemistry observations from the ANDRILL MIS project IODP New Ventures in Exploring Scientific Targets (INVEST) workshop, September 23-25, 2009, University of Bremen, Germany

- Vogel, S.W., R.D. Powell, I. Griffith, T. Lawson, K. Anderson, S.A. Schirtoga, G.Ludlam and J. Oen (2009) Instrument development for extreme environments: Geochemical and physical instrumentation development for characterizing a subglacial aquatic environment in Antarctica. OceanObs 2009, Sept 21-25, 2009 Venice, Italy.
- Vogel, S.W., D. Helling, R.E. Brown, G. Kuhn and D. Tollstrup (2009) *Pliocene-Pleistocene record of glacial Interglacial Cyclicity in the McMurdo Sound from the ANDRILL-MIS carbonate record*, First Antarctic Climate Evolution (ACE) Symposium, September 7-11, 2009, Granada, Spain
- Carr, S. A., A. W. Glossner, R. B. Dunbar, S. W. Vogel, J. Brandes, S. G. Wakeham, T. R. Naish, R. D. Powell, K. W. Mandernack (2009) *Characterization of the Ross Sea sedimentary bacterial and archaebacterial communities by structural and isotopic analyses of Phospholipids* First Antarctic Climate Evolution (ACE) Symposium, September 7-11, 2009, Granada, Spain
- Scherer, R., R. Powell, S. Vogel and 16 associated WISSARD Project Investigators at 9 institutions (2009) *The Whillans Ice Stream Subglacial Access Research Drilling (WISSARD) Project,* First Antarctic Climate Evolution (ACE) Symposium, September 7-11, 2009, Granada, Spain
- Vogel, S.W., R.D. Powell, I. Griffith, T. Lawson, K. Anderson, S.A. Schirtoga, and G.Ludlam (2009) *The NIU Sub Ice ROVer and other sub ice instrumentation Update Report on the development of new tools for studying subglacial environments*, EGU-spring meeting, April 20-24, 2009, Vienna, Austria
- Vogel, S.W., D. Helling, R.E. Brown, G. Kuhn and D. Tollstrup (2009) *Pliocene-Pleistocene record of glacial Interglacial Cyclicity in the McMurdo Sound from the ANDRILL-MIS carbonate record*, EGU-spring meeting, April 20-24, 2009, Vienna, Austria
- Vogel, S. W. D. Helling, G. Kuhn and R. Brown (2009) *Isotopic Composition Of Autogenic Carbonate Records Of Glacial-Interglacial Interaction In The McMurdo Sound*, ANDRILL-MIS project Science Integration Workshop, February 10-13, 2009, Wellington, NZ
- Vogel, S.W., S. Tulaczyk, L.D. Anderson, D. Andreasen, K.W. Mandernack R. Dunbar, R. Newton and S. Bottrell (2009) *Overview On Isotopic And Elemental Composition Of Porewater Derived From The ANDRILL MIS Main Core AND-001 B*, ANDRILL-MIS project Science Integration Workshop, February 10-13, 2009, Wellington, NZ
- D. Helling, G. Kuhn, H.von Eynatten, S.W. Vogel, F. Rugi, E.Castellano, R. Udisti, F. Aghib and A. Bellanca (2008) *Dolomite Hiighlights Glacial to Interglacial Transitions in Ross Sea Deposits of AND-1B core, Antarctica.* AGU-Fall meeting, December 15-19, 2008, San Francisco, Ca, USA
- S. Carr, A. Glossner, R. Dunbar, S.W. Vogel, J. Brandes, S. Wakeham and K. Mandernack (2008) Structural and  $\delta^{I3}C$  analyses of bacterial phospholipids in marine sediments beneath the Ross Ice Sheet, Antarctica. AGU-Fall meeting, December 15-19, 2008, San Francisco, Ca, USA
- Vogel, S.W., R.D. Powell, I. Griffith, K. Anderson, S. A. Schiraga and T. Lawson (2008) Sub glacial environment exploration- Concept and Technological Challenges for the Development and Operation of a Sub Ice ROV'er and Advanced Sub-Ice Instrumentation for Short and Long-Term Observations. The IEEE/OES AUV 2008 Conference on Polar AUVs, October 13-14, 2008, Woods Hole Ma, USA
- Vogel, S.W. and R. D. Powell (2008) *New Instrumentation, scientific and technological challenges for sub ice research opportunities for international & interdisciplinary collaboration.* Joint WAIS workshop and 2008 Forum for Research Into Ice Shelf Processes (FRISP), September 17-19, 2008, Losehill Hall, Peak District National Park, Castleton, Hope Valley, Derbyshire, UK
- Vogel, S.W., S. Tulaczyk and B. Lanoil (2008), *Chemistry of an Antarctic Subglacial Environment The role of subglacial geochemical processes in global biogeochemical cycles and quantifying subglacial hydrological processes*. Goldschmidt conference, July 13-18, 2008, Vancouver, Canada Geochimica Et Cosmochimica Acta. 72:A987-A987.
- Vogel, S.W., D. Helling, R.E. Brown and G. Kuhn (2008), *Isotopic Composition Of Autogenic Carbonate Records Of Glacial-Interglacial Interaction In The McMurdo Sound Update And Initial Results.* XXX SCAR/IASC IPY Open Science Conference, July 8-11, 2008, St. Petersburg, Russia.
- Vogel, S.W., S. Tulaczyk and B. Lanoil (2008), *Chemistry of an Antarctic Subglacial Environment The role of subglacial geochemical processes in global biogeochemical cycles and quantifying subglacial hydrological processes*. Oral Presentation XXX SCAR/IASC IPY Open Science Conference, July 8-11, 2008, St. Petersburg, Russia.

- Vogel, S.W., C.R. Bentley, R.D. Powell, A. Shturmakov and S. Tulaczyk (2008), *Workshop On Fast Access Drilling And Ice Sheet Bed Sampling*. Oral Presentation XXX SCAR/IASC IPY Open Science Conference, July 8-11, 2008, St. Petersburg, Russia.
- Vogel, S.W. (2008), *Preliminary carbon isotope results from the ANDRILL MIS core* the top 100 m of *AND-001-B*. EGU-spring meeting, April 14-18, 2008, Vienna, Austria.
- Vogel, S.W. and the ANDRILL Science Team (2008), Major and minor element concentrations in the ANDRILL MIS core complex interaction between glacial-climatic and volcanic processes? EGU-spring meeting, April 14-18, 2008, Vienna, Austria.
- Vogel, S.W. and R.D. Powell (2008), A concept for a new hot water-based, smart soft-coiled tubing drill system for interdisciplinary study of subglacial environments beneath ice sheets. EGU-spring meeting, April 14-18, 2008, Vienna, Austria.
- Vogel, S.W., S. Tulaczyk and B. Lanoil (2008), *Chemistry of an Antarctic Subglacial Environment The role of subglacial geochemical processes in global biogeochemical cycles and quantifying subglacial hydrological processes*. EGU-spring meeting, April 14-18, 2008, Vienna, Austria.
- Vogel, S.W., R.D. Powell, I. Griffith, K. Anderson, T. Lawson, S.A. Schiraga (2008), *The NIU Ice Borehole ROV Update Report on a new Tool for Subglacial Research*. EGU-spring meeting, April 14-18, 2008, Vienna, Austria.
- Vogel, S.W., S. Tulaczyk and B. Lanoil (2008), Chemistry of an Antarctic Subglacial Environment The role of subglacial geochemical processes in global biogeochemical cycles and quantifying subglacial hydrological processes. AGU Fall Meeting, December, 2007, San Francisco, Ca, USA.
- N. Quintana-Krupinski, S.Tulaczyk and S. W. Vogel (2007) *High-salinity waters beneath the margin of the West Antarctic ice sheet evidence from ANDRILL porewater studies*. 14<sup>th</sup> annual West-Antarctic Ice Sheet meeting joint with FRISP –Forum for Research into Ice Shelf Processes, September 5-7, 2007, Algonkian Regional Park, Sterling, VA
- Vogel, S.W.and R.D. Powell (2007). Technology Requirements for Subglacial Research. Polar Technology Conference, April 26-27, 2007, Stanford University, Ca, USA
- Vogel, S.W., R.D. Powell, I. Griffith, K. Anderson, S. A. Schiraga and T. Lawson (2007). *The NIU ice borehole ROV a new tool for subglacial research*. EGU-spring meeting 2007, Vienna, Austria.
- R.D. Powell and S.W. Vogel (2007) *The NIU ice borehole ROV a new tool for subglacial research*. Invited presentation at *AUV Science in Extreme Environments* workshop, April 11-13, 2007, Scott Polar Research Institute, Cambridge, UK
- Vogel, S.W. and R. P. Powell (2006). *A new hot-water based smart soft-coiled tubing drill system for investigating intermediate-depth subglacial environments*. 6<sup>th</sup> International Workshop on Ice Drilling Technology, September 17-23, 2006, Shepherdstown, West Virgina, USA, Annals of Glaciology.
- Vogel, S.W. and R. P. Powell (2006). *A new suctionless sediment coring system for subglacial research*. 6<sup>th</sup> International Workshop on Ice Drilling Technology, September 17-23, 2006, Shepherdstown, West Virgina, USA, Annals of Glaciology.
- Vogel, S.W., S. Tulaczyk, S. P. Carter, P. Renne, B. Turrin and I. Joughin (2006 not presented due to time conflict) *Geologic Constrains On Subglacial Volcanism In West-Antarctica And Implication Of Subglacial Volcanism On The Dynamic Of Whillans And Kamb Ice Stream* International Symposium on Earth and Planetary Ice-Volcano Interactions, Reykjavík, Iceland 19-23 June 2006
- Vogel, S.W., S. Tulaczyk, R.P. Scherer (2006) *Deciphering Subglacial Hydrological Processes From A Subglacial Carbonate Record An Isotopic And Elemental Geochemical Perspective* SALE in the International Polar Year (IPY) 2007-2008: Advanced Science and Technology Planning Workshop, April 24 to 26, 2006, Grenoble, France
- Vogel, S.W. and R.D. Powell (2006) *A New Smart Soft-Coiled-Tube Hot Water Drill For Fast Access To Antarctic Subglacial Systems* SALE in the International Polar Year (IPY) 2007-2008: Advanced Science and Technology Planning Workshop, April 24 to 26, 2006, Grenoble, France
- Vogel, S.W., S. Tulaczyk, R.P. Scherer (2006) Deciphering Subglacial Hydrological Processes From A Subglacial Carbonate Record An Isotopic And Elemental Geochemical Perspective EGU-spring meeting 2006, Vienna, Austria.

- McGillivary, Ph., G.D'Spain, T. Boyd, D. Doolittle, S. Vogel and H.W. Schenke (2006) *Autonomous Vessels For International Polar Year Studies In The Ross Sea, Antarctica*. Ocean Science Meeting, Honolulu, February 2006.
- Vogel, S.W., S. Tulaczyk, R.P. Scherer (2005) *How Far Did The Ice Melt? Deciphering The Minimum Extent Of The West Antarctic Ice Sheet During The Last Interglacial From A Subglacial Carbonate Record.* AGU-Fall meeting 2005, San Francisco, CA
- Vogel, S.W., R. Powell, R. Scherer, S. Tulaczyk, C. Finn, D. Elliot, A. Grunow, B. Lanoil, M. Skidmore, A. Behar (2005) *Scitesen A Scientific Drilling Traverse In West Antarctica Investigating The Influence Of Ice-Ocean-Lithosphere Interaction On Ice Sheet Stability, By Direct Means*. West-Antarctic Ice Sheet meeting, September 29 October 1, 2005, Algonkian Regional Park, Sterling, VA
- AITI and GELATI Organizing Committee, S.W. Vogel, R. Greve, K. Matsuoka, S. Das, C. Tweedie, and others (2005), AITI And GELATI Education And Training For The Next Generation Of Educators And Scientists During The IPY 2007/08 And Beyond. AOGS-meeting, Singapore.
- Vogel, S.W., M. Bouchard, S. Das, J. Gillermann, R Greve, K. Matsuoka, C. Tweedie, J. Pasotti and others. (2005) *AITI And GELATI Education And Training For The Next Generation Of Educators And Scientists During The IPY 2007/08 And Beyond*, AGU Spring Meeting 2005, New Orleans, USA
- Vogel, S.W., S. Tulaczyk, R. Scherer (2005), Subglacial Hydrology And The Basal Thermal Regime Of The West-Antarctic Ice Sheet An Isotopic Perspective And Its Implication For Ice Sheet Dynamics. EGU-spring meeting 2005, Vienna, Austria.
- Vogel, S.W., Tulaczyk, S., Carter, S., Renne, P.R., Turrin, B.D., I. Joughin (2004), *Subglacial Volcanism In West-Antarctica A Geologic And Ice Dynamical Perspective*, AGU Fall meeting 2004, San Francisco, CA
- Tulaczyk, S., S.W. Vogel, R. Powell, R. Scherer, D. Elliot, A. Grunow, B. Lanoil, M. Skidmore, F. Carsey, A. Behar, H. Engelhardt, R. Bolsey (2004), *Investigating The Subglacial Environment And Geology Of Antarctica And Greenland By Direct Means*, AGU Fall meeting 2004, San Francisco, CA
- Carsey, F. D., A. Behar, H. Engelhardt, M. Craven, S. Vogel, P. Christoffersen (2004), *Study Of Ice Sheet Basal Processes With Visible Light Images Acquired From A Borehole Probe*, AGU Fall meeting 2004, San Francisco, CA.
- Vogel, S.W., S. Tulaczyk, B. Kamb, H. Engelhardt, F.D. Carsey, A.E. Behar, A.L. Lane, I. Joughin (2004), *Basal Ice Accretion, Availability Of Basal Water, Ice Stream Stoppage And Potential Restart Of Kamb Ice Stream*, 10<sup>th</sup> WAIS-meeting, September 29-Oct 2, 2004, Algonkian meeting Center, Sterling, VA.
- Vogel, S.W., A Grunow, S. Tulaczyk (2004), *Magnetic Properties Of Subglacial Sediment From West-Antarctic Ice Streams*, 10<sup>th</sup> WAIS-meeting, September 29-Oct 2, 2004, Algonkian meeting Center, Sterling, VA.
- Vogel, S.W., S. Tulaczyk, R. Powell, R. Scherer, D. Elliot, A. Grunow, B. Lanoil, M. Skidmore, F. Carsey, A. Behar, H. Engelhardt, R. Bolsey (2004), *Investigating The Subglacial Environment And Geology Of Antarctica By Direct Means, A New Frontier In Antarctic Research*, Workshop on Science Opportunities for a Multidisciplinary Long-Range Aircraft for Antarctic Research, September 27-29, 2004, Herndon, VA, USA
- Vogel, S.W., B. M. Csatho, C.J. van der Veen (2004), Subglacial Conditions Beneath The Greenland Ice Sheet Linkage Between Subglacial Geology And Ice Dynamics I: Basal Melt And Sedimentary Bed Strength. International Symposium on arctic glaciology, August 23-27, 2004, Geilo, Norway, IGS
- Vogel, S.W., S. Tulaczyk, S. Carter and A. Grunow (2003), What Can Subglacial Sediment Tell Us About The Underlying Geology And The Dynamic Of The West-Antarctic Ice Sheet? AGU Fall meeting 2003, San Francisco, CA.
- Tulaczyk, S., S. Vogel, M. Bougamont, I. Joughin and I. Howat (2003), *Production- And Transport-Limited Erosion Beneath Ice Sheets: A Coupled Model Of Subglacial Erosion And Sediment Transport*. 2003 INQUA Congress, July 23-30, 2003, Reno, NV USA.
- Vogel S.W., S. Tulaczyk, Ian Joughin (2003), *Basal Water Fluxes In The Catchment Areas Of Whillans Ice Stream And Ice Stream C (West-Antarctica)*, for oral presentation at EGS-AGU Spring meeting 2003, April 7-11, 2003, Nice, France.
- Vogel S.W., S. Tulaczyk, A. Grunow (2003), *Provenance Of Subglacial Sediment From West-Antarctica*. *SEAP-workshop*, March 3-5, 2003, University of Colorado, Boulder, CO.

- Vogel, S.W., S. Tulaczyk, and I. Joughin (2002), Temporal Changes In Spatial Distribution Of Basal Melting And Freezing In The Catchment Areas Of Whillans Ice Stream And Ice Stream C, West Antarctica: Interplay Of Climatic Changes And Ice Dynamics. AGU-2002 Fall meeting, San Francisco, CA.
- Vogel, S.W., Tulaczyk, S., Engelhardt, H.; Bolsey, R.; Anderson, S.; Kamb, B. (2002), *Studying the Subglacial Hydrological System In West-Antarctica Opportunities And Challenges*. Fastdrill Workshop, Interdisciplinary Polar Research on Fast Ice-Sheet Drilling, October 3-6, 2002, University of California Santa Cruz, CA.
- Vogel, S.W., Tulaczyk, S., Anderson, S. (2002), Subglacial Hydrology Inferred From Analyzes Of Subglacial Water And Basal Ice From The Upc Sticky Spot. Oral Presentation, WAIS-meeting, September 18-21, 2002, Algonkian meeting Center, Sterling, VA.
- Vogel, S.W., S. Tulaczyk, and I. Joughin (2002), *The Thermal Regime At The Base Of West-Antarctic Ice Stream Tributaries Is The Holocene Decay Of The West-Antarctic Ice Sheet Coming To An End?* Poster presentation, European Geophysical Meeting, April 22-26, 2002, Nice, France
- Vogel, S.W. and Tulaczyk, S. (2001). *Thick Debris-Bearing Basal Ice Layer Beneath Ice Stream C, West-Antarctica: Are Ice Stream Tributaries A Source Or A Sink Of Water?* Oral presentation, WAIS-meeting, September 19-22, 2001, Algonkian meeting Center, Sterling, VA.
- Vogel, S.W., Tulaczyk, S. and Joughin, I. (2001). *The Thermal Regime At The Base Of The West-Antarctic Ice Stream Tributaries Is The Holocene Decay Of The West-Antarctic Ice-Sheet Coming To An End?* Poster presentation 2001 Annual Meeting AGU, December 10-14, 2001, San Francisco, CA USA
- Vogel, S.W. (2001). *The Minimum Extent Of Snow Patches As A Climatic Indicator Use Of High Resolution Landsat 7 Band 8 For Single Band Snow-Cover Classification*. Poster presentation, 4th Int. Symp. on Remote Sensing in Glaciology, June 4 8, 2001, College Park, MD, USA
- Vogel, S.W. (2000). *Minimum Snow-Cover Extent And Snow Cover Dynamic Of A Low-Arctic Site (Abisko, North Sweden) Derived From Landsat 7 Images*. Oral presentation, 30th Int. Arctic Workshop, INSTAAR, University of Colorado, March 16 -18, 2000, Boulder, CO USA
- Vogel, S. and C. Schneider (1999): *Snow-Cover Dynamic And One-Dimensional Energy Fluxes At The Schauinsland, Black Forest (Germany)*. Arbeitskreis Klima in der Deutschen Gesellschaft für Geographie, 18. Treffen, 29.- 31.10.1999. Burg Rothenfels, Germany.

## **Academic Services**

2009 – 2011/12 Member of US-Ice Core Working Group

2005 – 2010 Member of US-SALE Executive Committee on Environmental Affairs; Member of US-SALE Science Committee for Geology and Long-term Paleoclimate; Chair of US SALE Technology Committee for Drilling and Coring

03/2005 – 04/2007 Member of ESPERE Steering Committee (http://www.espere.net)

## Organizer, Convener or co-convener of conference sessions and workshops:

*Ice melt in Antarctica and Greenland and its implication for ice sheet and ice shelf stability in the 21st century* Vogel S.W., P. Heil, S. Alexander, Davos Atmosphere Cryosphere Assembly – 2013, Davos, Switzerland July 8-12, 2013

Workshop on Winter Over Science in Glaciology, Vogel, S.W. June 28, 2013, Strategic Science in Antarctica - A joint Australian and New Zealand conference 24 – 26 June 2013. Hobart, Tas, Australia. <a href="http://glaciowinterscience.weebly.com/">http://glaciowinterscience.weebly.com/</a>

Winter Over Subglacial Environments – Properties and Processes Influencing Ice Dynamics. Bingham R., S.W. Vogel, and H. Hubbard, EGU meeting 2014, April 27 – May 2, 2014, Vienna, Austria.

Subglacial Environments – Properties and Processes Influencing Ice Dynamics. Bingham R., S.W. Vogel, and H. Hubbard, EGU meeting 2013, April 7-12, 2013, Vienna, Austria.

*Amery Ice shelf Ocean Research – AMISOR Workshop* Vogel, S.W., October 2-3, 2012, Hobart, Tas, Australia, <a href="http://amisorworkshop2012.weebly.com/">http://amisorworkshop2012.weebly.com/</a>

Subglacial Environments – Properties and Processes Influencing Ice Dynamics. Bingham R., S.W. Vogel, and H. Hubbard, EGU meeting 2012, April 22-27, 2012, Vienna, Austria.

Subglacial Environments – Properties and Processes Influencing Ice Dynamics. Bingham R., S.W. Vogel, H. Hubbard and H. Fricker, EGU meeting 2011, April 3-8, 2011, Vienna, Austria.

*Subglacial Environments – Properties and Processes Influencing Ice Dynamics*. Bingham R., S.W. Vogel, H. Hubbard and H. Fricker, EGU meeting 2010, May 2-7, 2010, Vienna, Austria.

Glacier and Ice Sheet Hydrology: Processes in Subglacial Environments. Vogel, S.W., M. Studinger, and M. Tranter, AGU Fall Meeting 2009, December 10-14, 2009, San Francisco, Ca, USA.

Subglacial Environments – Properties and Processes Influencing Ice Dynamics. Bingham R., S.W. Vogel, H. Hubbard and H. Fricker, EGU meeting 2009, April 20-24, 2009, Vienna, Austria.

Workshop on Fast Access Drilling and Ice Sheet Bed Sampling. Vogel, S.W. and C. Bentley (co-chairs), April 29 - May 1, 2008, Algonkian Regional Park, Sterling, Va, USA.

Subglacial Environments – Properties and Processes Influencing Ice Dynamics. Hubbard, B., S.W. Vogel, , R. Bingham, U. Fischer, and H. Fricker, EGU meeting 2008, April 13-18, 2008, Vienna, Austria.

Glacier and Ice Sheet Hydrology: Processes in Subglacial Environments. Fountain A., M. Studinger, M. Tranter and S.W. Vogel, AGU Fall Meeting 2007, December 10-14, 2007, San Francisco, Ca, USA.

Subglacial Environments – Properties and Processes Influencing Ice Dynamics, Fischer, U., B. Hubbard and S.W. Vogel EGU meeting 2007, April 15-20, 2007, Vienna, Austria.

Glacier and Ice Sheet Hydrology: Processes in subglacial Environments. Fountain, A., M. Studinger, M. Tranter and S.W. Vogel, AGU Fall Meeting 2006, December 11-15, 2006, San Francisco, Ca, USA.

Subglacial environments – properties and processes influencing ice dynamics Fischer, U., B. Hubbard an S.W. Vogel EGU meeting 2006, April 2 - 7, 2006, Vienna, Austria.

## Community and Planning Workshop Participation:

IODP New Ventures in Exploring Scientific Targets (INVEST) workshop, September 23-25, 2009, University of Bremen, Germany

Workshop on Ocean Biology Observatories, September 16-18, 2009, Mestre, Italy

Future of Continental Scientific Drilling: An Us Perspective workshop, June 3-5, 2009, Denver, Co, USA Geoscience Research on Antarctic Subglacial Environments workshop, September 1, 2007, SCAR 10<sup>th</sup> Int. Symp. On Antarctic Earth Sciences, August 26 – September 1, 2007, Santa Barbara, Ca, USA

SALE in the International Polar Year (IPY) 2007-2008: Advanced Science and Technology Planning - Workshop, April 24 to 26, 2006, Grenoble, France

Workshop on Science Opportunities for a Multidisciplinary Long-Range Aircraft for Antarctic Research, September 27-29, 2004, Herndon, VA, USA

International Partnership on Ice Coring Sciences (IPICS) meeting, March 14-16, 2003, Algonkian meeting Center, Sterling, VA USA

Structural Evolution of the Antarctic Plate (SEAP) - workshop, March 3-5, 2003, University of Colorado, Boulder, CO, USA

Interdisciplinary Polar Research Based on Fast Ice-Sheet Drilling (FASTDRILL-Workshop) October 3-5, 2002, University of California Santa Cruz.

#### Others:

Mail in proposal review for European Union, NSF-OPP, NASA, VENI, NERC, Natural Science and Engineering Research Council of Canada

Mail in review for Remote Sensing of Environment, JGR, JEME, J of Glaciology, Annals of Glaciology and Nature Geoscience

Organizer of Town Hall Meetings on Teaching and Outreach during the International Polar Year at the EGU spring meeting in Vienna (April 27, 2005) and AGU-Spring Meeting in New Orleans, (May 26, 2005)

## **Advanced Training**

Sports, Life & Business Coaching various activities, seminars & workshops (50+ days) – ongoing since 2011 Clean Language and Symbolic Modelling: Using metaphor as a mirror to see yourself and others, by Penny Tompkins and James Lawley <a href="http://www.cleanlanguage.co.uk/">http://www.cleanlanguage.co.uk/</a> March 28-30, 2014 Hobart Tas, Australia Manager Awareness, impact and action: mental health in the workplace, workshop by Davidson Trahaire Corpsych, October 20, 2014, AAD, Kingston, Tas, Australia

Personal Efficiency Training Nov 2011

Scientific Drilling - Training Course 2008 - The International Continental Scientific Drilling Program (ICDP) October 6-9, 2008, Windischeschenbach, Germany

# **Leadership Activities (presentations)**

Getting to the point and expressing what really matters Leadership seminar on communicating efficiently and with influence presentation at ACE-CRC, AAD Hobart, Tas, Australia (August 2012)

Efficient Science Writing and Science Presentations – Notes and Thoughts from a Science Writing Workshop IMAS ACE-CRC presentation with Jan Lieser, ACE-CRC UTAS (Oct 4, 2011)

#### **Seminar Talks**

21st Century Climate Change Impact on East Antarctica and its Implication for global sea-level rise towards the end of the 21st Century. Seminar Talk Alfred Wegner Institute, Bremerhaven, Germany, Oct. 15, 2012

*Inferring ice dynamics from Observations* Seminar Talk Alfred Wegner Institute, Bremerhaven, Germany, October 15, 2012

Six months into a new job – Ice Sheet Glaciology where East meets West Seminar Talk February 17, 2012, National Institute for Water and Atmospheric Research (NIWA), Wellington, New Zealand

Six weeks in the new job – An East and West Antarctic comparison of past work and future challenges IMAS ACE-CRC Seminar Series, August 3, 201, IMAS UTAS, Hobart, Tasmania, Australia

There is more to climate than climate – subglacial environments, ice ocean interactions and their role in the Earth's System. Seminar Talk April 14, 201, KlimaCampus, University of Hamburg, Germany

Global Climate Change and Human Energy Consumption. September 21, 2010, Dept of Geosciences, San Francisco State University. USA

There is more to climate - ice ocean interactions, subglacial environments and their role in the Earth's System. January 27, 2010 – Romberg Tiburon Center – San Francisco State University, USA

Subglacial Environments in the Earth's Surface Systems - ice-ocean-lithosphere interaction linking ice dynamics with tectonic processes, global ocean circulation and the earths climate evolution Seminar Talk March 22, 2007, Hosts: Peter Doran, Todd Dupont, University of Illinois at Chicago, USA

Seminar Talk April 23, 2007, Alfred Wegener Institute, Bremerhafen, Germany Seminar Talk May 11, 2007, Host Doug MacAyeal, University of Chicago, Chicago, Illinois, USA

Subglacial Hydrology and the Basal Thermal Regime of the West-Antarctic Ice Sheet – a Geochemical and Isotopic Perspective. Seminar talk Feb. 4, 2005, Byrd Polar Research Center, Ohio State University, USA

Conditions at the base of the West-Antarctic Ice Sheet ice dynamics versus climatic changes. Seminar talk June 5, 2003, Byrd Polar Research Center, The Ohio State University, USA

Basal Conditions Of West-Antarctic Ice Stream Tributaries

Seminar talk September 11, 2002, Host Dr. R. Scherer, Department for Geology and Environmental Geosciences, Northern Illinois University, USA

Distribution Of Basal Melting And Freezing Underneath Ice Stream C Tributaries - Implication For The Holocene Decay Of The West Antarctic Ice Sheet.

Seminar talk July 24, 2002, Host. Dr. W. Lawson, Department of Geography – University of Canterbury, Christchurch, New Zealand.

#### **Other Presentations**

Vogel, S.W. (2013) *Ice Ocean Interactions – One Ice Sheet Glaciology Perspective*. Presentation at the Ice Ocean Interactions under sea-ice and ice shelves: synergies and connections. Strategic Science in Antarctica - A joint Australian and New Zealand conference 24 – 26 June 2013. Hobart, Tas, Australia

Vogel, S.W. (2012) *Subglacial Hydrology and ice sheet bed interactions*. ACE-CRC – Ice Sheet Modeling workshop – Hobart, Tas, Australia November 30, 2012

Vogel, S. W. (2008) Hot Water Based Fast Access Drilling - drilling through metamorphic rock across its melting point Scientific Drilling - Training Course 2008 - The International Continental Scientific Drilling Program (ICDP) October 6-9, 2008, Windischeschenbach, Germany

Vogel, S.W. (2007), *Subglacial Geochemistry*, invited oral-presentation at the Workshop on *Geoscience Research on Antarctic Subglacial Environments*, 10th International Symposium on Antarctic Earth Sciences, August 26-31, 2007, Santa Barbara, Ca, USA

Vogel, S.W., S. Tulaczyk, R. Powell, R. Scherer, D. Elliot, A. Grunow, B. Lanoil, M. Skidmore, F. Carsey, A. Behar, H. Engelhardt, R. Bolsey (2004) *A Hydro-Mechanical Drilling System For Obtaining Rock And Sediment Samples From Under Deep Glacier Ice*, poster at the workshop on Frontiers and Opportunities in Antarctic Geosciences, August 29-31, 2004, Certosa di Pontignano (Siena, Italy).

Vogel, S.W., S. Tulaczyk, F. Carsey, A. Behar, H. Engelhardt, R. Bolsey, B. Lanoil, M. Skidmore (2004) *The Subglacial Environment - Opportunities And Challenges Studying Subglacial Hydrology, Subglacial Geology And Life In An Extreme Environment*, poster at the workshop on Frontiers and Opportunities in Antarctic Geosciences, August 29-31, 2004, Certosa di Pontignano (Siena, Italy).

Vogel, S.W., S. Tulaczyk, F. Carsey, A. Behar, H. Engelhardt, R. Bolsey, B. Lanoil, M. Skidmore (2004) *The Basal Zone Of Deep Ice Cores - Opportunities And Challenges Studying Subglacial Hydrology, Subglacial Geology And Life In An Extreme Environment.* Poster at the International Partnership on Ice Coring Sciences meeting, March 14-16, 2003, Algonkian meeting Center, Sterling, VA USA

Snow-Cover Dynamics And One Dimensional Energy Balance Of A Snow-Cover At The Schauinsland (Black Forest, Germany). Oral presentation - Alumni Symposium - April 15, 2000 Department of Geological Sciences, University of Kentucky, Lexington, KY USA

#### Outreach

Beakerstreet@TMAG – Contribution to the Beakerstreet@TMAG event as part of the 2017 National Science Week activities at Tasmanian Museum & Art Gallery – August 18 – 20, 2017.

Krill connections: Why is Hobart the krill capital of the world? - Contribution to CCAMLR event as part of the 2017 National Science Week activities -August 16 2017

Tasmanian Science Festival Roadshow 2016 – contribution to the 2016 National Science Week - screening a selection of science short films to schools and the general public across rural Tasmania.

Festival of Bright Ideas, National Science Week, August 14-15, 2015

Exhibition - GLACIOLOGY TASMANIA - Experiments and presentations about snow and ice, glaciology and climate change, Antarctica, and polar and alpine regions, including a presentation on glacial landforms in Tasmania.

Live presentation - Sedimentation and Transformation of Snow to Ice, August 15, 2015, 14:10

Contribution to IMAS Open Day Exhibition on Antarctica, August 31, 2014

Presentation to school groups and the public on Antarctica and Sea-Ice as part of the 2014 National Science week activities at the Tasmania Museum

Science of the Sea -- Oceans of Change is at TMAG 19 -- 23 August 2014, Science of the Sea -- Where Art Meets Science is on Saturday 23 August,

Contribution to the Polar Open Science Day, March 9, 2014, as part of the IGS Symposium - International Symposium on Sea Ice in a Changing Environment, Hobart, Australia, 10 – 14 March 2014

Presentation on Research in Antarctica at Rotary Club of Glenorchy, Tas, Australia, January 19, 2012

Production of film documentary on the sub ice technology developments with Brave New Pictures

6-minute short film by S.W.Vogel and Joey Vigour (3-Launch Media) – contribution to the Olson Video Workshop, Ocean Science Meeting 2010, February 24, 2010, Portland Oregon.

Development of an outreach program with the Museum of Science and Industry in Chicago, including development of a live video conferencing program following the progress of the sub ice technology developments and its testing phase.

Contribution to an Icelandic TV production featuring a research expedition on the Vatnajokull Ice Cap, Iceland in June 2009, investigating volcanic subglacial lake environments.

Contributor to the Ocean Layer of Google Earth

Participation in a LEARNZ Teleconference answering questions of students from 4 schools in New Zealand, as part of the ANDRILL outreach activities. McMurdo Station Antarctica, November 17, 2006

Co-Host of Café-Scientific "Comings & Goings of Ice Sheets" at McMurdo Station as part of ANDRILL outreach activity Project Iceberg McMurdo Station Antarctica, November 21, 2006

Participation in ANDRILL outreach activity Project Iceberg.

Antarctica, A Bottom View - Subglacial Environments And The Global Environment Presentation at Solduc Kishwaukee Sierra Club. October 20, 2005, DeKalb, Illinois, USA

Antarctica – A Fascinating Continent

Presentation at a center for disabled people. July 11, 2002, Wellington, New Zealand

## **Funded Proposals**

AMISOR - Amery Ice Shelf Ocean Research – Australian Antarctic Science Project #1096 & AAS 4096 - PI and Project Management Nov 2011 – July 2015 (~AUD\$ 200,000 without logistics and personnel costs).

West Antarctic Ice Sheet Grounding Line and Subglacial Lake Studies October 2009 – December 2012 Collaborative Proposal funded by Gordon and Betty Moore Foundation (PI's Powell, Scherer, Vogel), \$1,300,000

WISSARD - Whillans Ice Stream Subglacial Access Research Drilling October 2009 – September 2014 Collaborative Proposal of 14 PI's at 9 institutions, funded NSF-OPP Antarctic Integrated System Science Program, (lead PI's: R.D. Powell, J. Priscu, S. Tulazyk), total all institutions \$10,100,000

Deciphering Climatic Changes and Ice Sheet Evolution From A Carbonate Stratigraphy Funded proposal participating in the ANDRILL Science Team, June 2006 - 2009.

S.W. Vogel (PI), Analytical Center for Environmental & Climatic Change – ACCEC, Northern Illinois University - Geology and Environmental Geosciences. \$71,636 + \$64,979 - total \$136,615

Deciphering Climatic Changes and Ice Sheet Evolution From A Carbonate Stratigraphy
Funded proposal participating in the ANDRILL Science Team, June 2006 – Mai 2009.
S.W. Vogel (PI), Dept of Earth and Planetary Sciences, University of California – Santa Cruz. \$29,830 + \$10,978 - total \$40,808

#### **Others**

Expression of Intents to ICSU-WMO IPY Joint Committee:

Scientific International Traverse For Investigating The Subglacial Environment Of West-Antarctica AITI And GELATI - Education And Training For The Next Generation(S) Of Scientists In Polar Science During And After The IPY

# **Awards & Scholarships**

June 2013, CSIRO Prize for Best Poster (Established Scientist), Strategic Science in Antarctica – Joint Australian and New Zealand conference, Hobart, Tas, June 24-26, 2013

September 2009, travel grant to participate in the IODP New Ventures in Exploring Scientific Targets (INVEST) workshop, September 23-25, 2009, University of Bremen, Germany

September 2009, travel grant to participate in the First Antarctic Climate Evolution (ACE) Symposium, September 7-11, 2009, Granada, Spain

October 2008, travel grant to participate in the Scientific Drilling - Training Course 2008 - The International Continental Scientific Drilling Program (ICDP) October 6-9, 2008, Windischeschenbach, Germany

July 2008, travel grant to participate in the XXX SCAR/IASC IPY Open Science Conference, July 8-11, 2008, St. Petersburg, Russia.

July 2007, travel grant to give an invited oral presentation at the Workshop on *Geoscience Research on Antarctic Subglacial Environments*, 10th International Symposium on Antarctic Earth Sciences, August 26-31, 2007, Santa Barbara, Ca, USA

March 2006, travel grant to participate in the SALE in the International Polar Year (IPY) 2007-2008: Advanced Science and Technology Planning - Workshop, April 24 to 26, 2006, Grenoble, France

March 2005, travel grant to participate ICDP Conference "Continental Scientific Drilling 2005: A Decade of Progress and Challenges for the Future", March 30 to April 1, 2005, GeoForschungsZentrum, Potsdam, Germany.

September 2004, travel grant to participate in the Workshop on Science Opportunities for a Multidisciplinary Long-Range Aircraft for Antarctic Research, September 27-29, 2004, Herndon, VA, USA

March 2003, travel grant to participate in the Structural Evolution of the Antarctic Plate (SEAP) workshop, March 3-5, 2003, University of Colorado, Boulder, CO

December 2002, EGS - AGU - EUG Joint Assembly travel award to attend EGS - AGU - EUG Joint Assembly April 7-11, 2003, Nice, France.

December 2002, CODEP Student Research Travel Award - \$ 300 to attend the EGS - AGU - EUG Joint Assembly April 7-11, 2003, Nice, France. Travel grant from the Institute of Geophysics and Planetary Physics, University of California Santa Cruz

Mai 2002 AGU student travel grant - \$400 to attend the Western Pacific Geophysics Meeting in Wellington, New Zealand, 9-12 July 2002

October 2001 CODEP Student Research Travel Award - \$ 500 to attend the Western Pacific Geophysics Meeting in Wellington New Zealand, 9-12 July 2002, Travel grant from the Institute of Geophysics and Planetary Physics, University of California Santa Cruz

April 2000 Geological Society of America - Research Grant of US\$ 1600 by the Geological Society of America. Varve chronology and past climatic variability of the Abisko Region (Northern Sweden) as an example for a mountainous, low arctic-site.

April 2000 Mc Farland Fund - Research Grant of US\$ 600 by Department of Geology - University of Kentucky, Lexington, Kentucky Declined to transfer to UCSC. Varve chronology and past climatic variability of the Abisko Region (Northern Sweden) as an example for a mountainous, low arctic-site.

January 2000 Travel grant for 30th Int. Arctic Workshop - March 16 -18, 2000 INSTAAR, University of Colorado, Boulder, Co, USA

July 1999 Young Scientist Stipend - US\$ 350 by the Int. Arctic Science Committee travel grant for advanced study course 'IRISEN Integrated Regional Impact Studies in the European North. Basic Issues, Methodologies and Regional Climate Models 'at Abisko Research Station of the Royal Swedish Academy, Abisko, Sweden Current Research Projects

# Past Research Projects & Field Experience

2016 to present – *East Antarctic Melt Evolution* –remote-sensing evaluation of melt distribution on the fringes of East Antarctica – PI & Project Management

2011-2015

AMISOR - Amery Ice Shelf Ocean Research – Australian Antarctic Science Project #1096 & AAS 4096 - PI and Project Management Nov 2011 – July 2015

2013/14

AAS 3372 - Skiway Project – surface glaciology and climate variability in the Frames Mountains, East Antarctica, Science program development and glaciological field work in the Frames Mountains, Mawson Station, East Antarctica

2010-2011

West Antarctic Ice Sheet Grounding Line and Subglacial Lake Studies October 2009 – December 2012 Collaborative Proposal funded by Gordon and Betty Moore Foundation (PI's Powell, Scherer, Vogel),

WISSARD - Whillans Ice Stream Subglacial Access Research Drilling. Collaborative Proposal funded NSF OPP, (lead PI's: R.D. Powell, J. Priscu, S. Tulazyk)

July 2006 – July 2009

Deciphering Climatic Changes And Ice Sheet Evolution From A Carbonate Stratigraphy. Funded proposal participating in the ANDRILL On-Ice Science Team, begin summer 2006. S.W. Vogel (PI), Analytical Center for Environmental & Climatic Change – ACCEC, Northern Illinois University - Geology and Environmental Geosciences.

April 2005 – October 2010

Facility for Exploring and Sampling Subglacial Environments (FESSE) – Development of Instrumentation for Exploring Subglacial Environment. Collaborative technology development, PI's: Ross Powell, Reed Scherer, Stefan Vogel (Northern Illinois University). Funds available to Dept. of Geology and Environmental Geosciences at NIU by grants from NOAA, NSF-OPP, Gordon and Betty Moore Foundation.

October 2006 – January 2007

ANDRILL On-Ice Science Team Member, Pore water extraction and geochemistry. McMurdo Station, Antarctica

2004 - 2005

Influence Of Subglacial Geology And Climate Change On Subglacial Conditions Beneath The Greenland Ice Sheet. Subglacial conditions beneath the Greenland ice sheet – linkage between subglacial geology and ice dynamics I: Basal melt and sedimentary bed strength. Collaborative research with C.J. Vander Veen and B. Csatho (OSU).

Isotopic Composition Of Cryoconite Holes And Its Contribution To A Better Understanding Of The Hydrologic System In The McMurdo Dry Valleys, Antarctic. Collaborative research with A. Fountain (Portland State University)

Micro-Analysis Of Subglacial Sediment And Basal Ice Using High-Resolution Scanning Electron Microscope Imagery Collaborative research with R. Scherer (Northern Illinois University) and S. Tulaczyk (UCSC). H. Engelhardt and B. Kamb (both Caltech) supplied ice and sediment samples from the Siple Coast ice streams.

2003 - 2004

Provenance Of Subglacial Sediments – Implications For Past, Present And Future Dynamic Of The WAIS. Source determination of sediments using Nd/Sm isotopes ratios, Rb/Sr isotopes ratios and rare earth element analyzes. Collaborative Research with Dr. S. Tulaczyk (UCSC) and A. Grunow (OSU)

2001 - 2003

Geochemistry Of Ice, Subglacial Waters And Sediments From The Base Of Ice Stream C, West Antarctica And Its Implication On The Stability Of The West-Antarctic Ice Sheet. Combining isotopical and chemical analyzes with computer modeling to investigate the basal hydrological system and the thermal condition of Ice Stream C tributaries. Pi: Dr. S. Tulaczyk, Dr. S. P.-Anderson, Dept. of Earth Sciences, UC-Santa Cruz in collaboration with Dr. H. Engelhardt, Dr. B. Kamb (California Institute of Technology, Pasadena), B. Lanoil, M. Skidmoore (UC-Riverside), R. Scherer (Northern Illinoi University, De Kalb)

# 2001 - 2003

The Basal Energy Balance Of Ice Stream C Tributaries (West-Antarctica): Are Ice Stream Tributaries A Source Or A Sink Of Water? Development and implementation of numerical model to investigate spatial and temporal variation in the basal energy balance of Ice Stream C tributaries. Quantification of basal melt and freeze-on rates and subglacial water fluxes to balance melting and freezing in geographic separated areas. Pi: Dr. S. Tulaczyk, Dept. of Earth Sciences, UC-Santa Cruz

# November 2000 - January 2001 Field assistant

Ice Stream Mechanics – Field Campaign To Ice Stream C - West-Antarctic Ice-Sheet,

What causes Ice Streams to stop? Implementation of hot water ice drilling and insitu measurements of physical and hydrological properties of till underneath Ice Stream C (now Kamb Ice Stream).

Pi: Dr. B. Kamb, Dr. H. Engelhardt - California Institute of Technology, Pasadena

#### 2000 - 2001

Particle Comminution And Rock Erosion By Deforming Subglacial Till an experimental study to investigate the sustainability of deformable subglacial sediment beds. Pi: Dr. S. Tulaczyk, Dept. of Geological Sciences, University of Kentucky, Lexington

#### 1999 - 2000

Snow Patch Evolution Of A Low Arctic Site (Abisko, North Sweden) Investigating the usage of Landsat 7 band 8 for single-band snow-cover classification to estimate the extent of snow-covers.

# September 2000 Field assistant

Data Collection For A Digital Elevation Model Of The Bedrock Topography At Blue Glacier - Olympic Mountain N.P., Washington Pi: Dr. S. Tulaczyk, Earth Sciences, University of California, Santa Cruz

#### August 2000

Reconstruction Of Past Climatic Variability From Varved Sediments In The Abisko Region (Northern Sweden) Lake sediment coring and water depth measurements. Pi: S.W. Vogel, supervised by Dr. S. Tulaczyk, University of California-Santa Cruz, Student Research Grant of the Geological Society of America (\$1600).

# August 1996 - March 1998

Snow Cover Dynamics And One-Dimensional Energy Fluxes At A Site In The Schwarzwald (Black Forest; Germany). Numerical modeling of the surface energy balance of snow-covers and preparation and implementation of a field campaign to collect meteorological and glaciological data for the numerical model. Pi: Prof. Dr. H. Gossmann, supervised by Dr. C. Schneider, IPG, Albert-Ludwigs University, Freiburg, Germany

## December 1995 - March 1996 Field Assistant

DYPAG (Dynamic Processes In Antarctic Geosystems)

Preparation and implementation of a field campaign to measure meteorological and glaciological data for surface energy balance modeling at Mc Lary Glacier (Marguerite Bay, Antarctic Peninsula). Application of field methods in glaciological and climatological research. Pi: Prof. Dr. H. Gossmann, supervised by Dr. C. Schneider, IPG, Albert Ludwigs University, Freiburg, Germany

# **Teaching Experience**

2012

Ice Sheet Glaciology & Mass Balance lecture for IMAS KSA 412/710 The Antarctic Environment, Institute for Marine and Antarctic Studies, University of Tasmania, Hobart, Tas Australia

2003 to 2011

Misc. substitute teaching in Glaciology, Oceanography, Geology, Earth Sciences.

Spring, Fall 2002/2003

Teaching assistant for 'Oceanography'

Main instructor Dr. J. C. Zachos, Dept. of Earth Sciences, University of California-Santa Cruz preparing and leading of a discussion and review session, preparing and grading of in lab work

2001

Teaching assistant for 'Earth Catastrophes'

Main instructor Dr. T. Lay, Dept. of Earth Sciences, University of California-Santa Cruz preparing and leading of a discussion and review session, grading of a final paper, 82 students in 4 sessions.

2000

Teaching assistant for an intro in geology class.

Main instructor Dr. P. Howell, Geology, University of Kentucky, Lexington, KY

1999

Course in cartography for Graduate Students

Interpretation of Maps - preparation of graduate students for the Staatsexamen

Albert Ludwigs University, Freiburg

1998 - 1999

Teaching assistant for course on Polar Regions.

Preparation of lecture material about Antarctica and lecturing about Antarctic climate history, marine ecosystems in Antarctica and Antarctic research history.

Prof. Dr. Härtling, Albert Ludwigs University, Freiburg

1998 - 1999

Teaching of undergraduate courses in climatology teaching,

planning of sections and preparing exercises in meteorology and climatology.

Albert Ludwigs University, Freiburg

1995 - 1998

Teaching assistant for undergraduate and graduate course covering various topics in physical geography. Prof. Dr. Metz, Prof. Dr. Mäckel, Prof. Dr. Goßmann

1996-98

Teaching of scuba diving - upper level physical education class, Albert Ludwigs University – Freiburg, Germany

## **Memberships**

Deutsche Gesellschaft fuer Polarforschung – 2008-present

International Glaciological Society – since 2000-2014

American Geophysical Union -since 2000-2014

Geological Society of America – 1999 - 2007

American Association of Petroleum Geologists – 2000 until 2004

Geochemical Society - 2008

Member of the German Mountaineering Club (DAV) – current since 1972

#### Certifications

2010-concurrent Wilderness First Responder, recertified 2013, 2016, Wilderness Medical Institute, NOLS CPR +,

2015- Marine Radio Operator certification & Cert II in Maritime Operations Coxswain Grade 1 near Coastal

2015-2015 Advanced First Aid and CPR

2013 Australian Antarctic Division - Antarctic Survival training

2013 Quad Bike Operation & Work Safely at Heights

2012 Expedition Medicine Class, July 21-28, 2012, General Practice Training Tasmania.

Basic life Support/ CPR, July 22, 2012, General Practice Training Tasmania

2012-2015 Australian Quarantine Awareness training & Accredited Person Certification.

2006 USAP Antarctic survival training

2005 Off-shore Helicopter Safety Program Helicopter Underwater Egress and Land Egress Training. LTR Training systems – Anchorage, Alaska; +1-907-563-4463

2000 USAP Antarctic survival training

1999 CEC-Instructor for CEC-Instructor courses for canyoning

1998 CEC-Instructor for canyoning

1997 German Mountaineering Club (DAV) Instructor for rock climbing and skiing

since 1995

Instructor for rafting (August 3rd 1995)

IAGA-Instructor for Canyoning (August 1st 1995)

since 1991 Scuba diving certified – open water diver, rescue diver

1984-1991 internship and working experience as mechanic

since 1987 First aid and CPR certified

# Scientific and Non-Scientific Expeditions

October – December 2013

Participation in ANARE Australian National Antarctic Research Expedition, Glaciological and Meteorological Research in the Frames Mountains (Mawson Station, East Antarctica).

May – June 2011

Solo-bicycle tour along the west coast of Canada from Vancouver (BC) to Whitehorse (Yukon).

June 2009

Participation in the Vatnajokull Ice Cap expedition of the Icelandic Meteorological Institute.

October 2006 – January 2007

ANDRILL On-Ice Science Team Member, Pore water extraction and geochemistry. McMurdo Station, Antarctica

July 2005

Participant of the UCSC Expedition to Breiðamerkurjökull, Iceland.

Expedition leaders: Dr. S. Tulaczyk, Ian Howat

November 2000 - January 2001

Participant of the Caltech hot water drilling expedition to Kamb Ice Stream, West Antarctica. Investigating subglacial hydrology and the causes stopping fast ice streaming of this currently dormant ice stream Implementation of hot water ice drilling and insitu measurements of physical and hydrological properties of till underneath Ice Stream C (now Kamb Ice Stream).

Expedition leaders: Dr. B. Kamb, Dr. H. Engelhardt - California Institute of Technology, Pasadena

September 2000

Blue Glacier - Olympic Mountain N.P., Washington – involvement in a rescue of a climber on Blue Glacier Organizer: Dr. S. Tulaczyk, Dept. of Earth Sciences, University of California, Santa Cruz

August 2000

Research expedition to the Abisko Region (Northern Sweden) to study climate variability from varved sediment. Lake sediment coring and water depth measurements.

Supported through a Student Research Grant of the Geological Society of America (\$1600).

December 1998

Preparation and implementation of a mountaineering expedition to Mt. Aconcagua (6961m /Argentine). Reaching the summit and rescue of an argentine mountaineer.

March 1996

High altitude mountaineering in Argentine climbing, Mt. Cathedral (5335m) and participating in a rescue attempt on Mt. Aconcagua.

December 1995 - March 1996

Participation in joint German - Argentine expedition to Mc Lary Glacier (Marguerite Bay, Antarctic Peninsula) as part of the DYPAG project (Dynamic Processes In Antarctic Geosystems).

Preparation and implementation of a field campaign to measure meteorological and glaciological data for surface energy balance modeling

Expedition leader: Frank Rau - IPG, Albert Ludwigs University, Freiburg, Germany

1994

Kenya (East-Africa) climbing to Mount Kenya and visiting a mission at Mbita (Lake Victoria)

1992

Participant of a caving expedition to caves in Kirgizia (East-Asia)

### **Other Activities**

2017 – fortnightly organization of Littles Bush Adventures & GMUMMS kids play group.

1993 - 2000

Guiding and teaching activities: rafting, kayaking, canyoning, climbing and skiing in Europe, Outdoor & Business incentive programs

since 1989 Organizing mountaineering activities in the European Alps, North & South America, Africa.