

Prof.iR.Dr. Matthias WINIGER  
University of Bonn, Dpt. of Geography  
Meckenheimer Allee 166  
D-53115 Bonn / Germany  
e-mail: [winiger@uni-bonn.de](mailto:winiger@uni-bonn.de)

Bonn/Heidelberg, 15.1.2023

## **Prof.iR. Dr. Matthias Winiger, Department of Geography, University of Bonn (Germany)**

### **1. Personal data**

- Borne 24.3.1943 in Berne, (Switzerland), Swiss Nationality
- 1963-1966: Studies for High School teacher (Diploma)
- 1966-1970: Masters-Programme (Diplom), University of Berne: Subjetcs: Geography, Physics, Botany
- Additional courses in Remote Sensing, Programming, High Mountain Research at Universities of Zurich, Innsbruck, DLR Oberpfaffenhofen
- 1970: Research Assistant at University of Waterloo (Canada),
- 1972-1974: Doctoral Studies University of Berne: Title of PhD-Thesis: "Bewölkungsuntersuchungen über der Sahara mit Wettersatellitenbildern" (*Investigation on cloud coverage over the Sahara Desert on the Basis of Satellite Data*)
- 1985: Habilitation at University of Berne: „Untersuchungen zum Klima und zur Klimaökologie unter Beizug von Fernerkundungsmethoden“. (*Studies on Climate and Ecology based on Remote Sensing Techniques*)

### **2. Professional Activities**

- 1970: University of Waterloo (Ontario, Canada): Research Assistant of Prof. Dr. D. Steiner
- University of Berne:
  - 1971: Assistant of Prof. Dr. B. Messerli
  - 1975: Chief Assistant (Oberassistent)
    - 1978: Lecturer (Oberassistent-Lektor)
    - 1985-1988: Junior Professor (PD-Oberassistent)
- University of Bonn:
  - Since 1988: Professor, repeated Director of the Institute of Geography
  - 2002-2004: Dean of the Faculty of Science and Mathematics of the University of Bonn
  - 2004-2009: Rector of the University of Bonn
- Since April 2011 Prof.iR. (retired)
- Since 2018 Associated Member of the South Asia Institute (SAI) of the University of Heidelberg

### **3. Activities in Scientific Organizations, Editorial Boards etc. (Selection)**

- Swiss Society of Natural Sciences: Founding Member of the Climate-Programme 'ProClim'
- Since 1992-2010: Co-Editor of "Erdkunde", „Bonner Geographische Abhandlungen“, „Colloquium Geographicum“
- 1992-1996: Member of IGU-Commission „Mountain Geoecology and Sustainable Development“ (IGU: International Geographical Union)
- Since 1995: Member of the Academy of Sciences and Literature Mainz
- 1996-2000: Chair of the IGU-Commission "Mountain Geoecology and Sustainable Development" (Organisation of conferences and excursions in Germany, Korea, Qinghai-Tibetan-Plateau; 2000 Editing of the IGU-Commissions ‚Field Guides for Landscape Ecological Studies in High Mountain Areas‘ (Winiger, Bendix, 2000)
- 1997-1999: Advisory Board "Mountain Research and Development"
- 2006-2010: Editor-in-Chief "Erdkunde"
- 2008: Co-Initiator of the Inter-University Consortium on Geosciences ‚Aachen-Bonn-Cologne-Res.Centre Juelich (ABC/J)
- 2009-2015: Independent Member of the Board of Governors of ICIMOD (Kathmandu)  
2014-2020: Member and International Advisor of the 'Upper Indus Basin Network' (UIB-N), coordinated by ICIMOD
- 2016-2019: Adjunct Faculty / External Advisor at CIIT-Abbottabad (HMRC)
- Since 2018: Associated Member of the South Asia Institute (SAI) at UoHeidelberg

### **4. Research in ‚Climatology‘ and ‚High Mountain Ecology‘**

- 1977-1981: CLIMOD-Project (Climatic impacts of nuclear power plants)
- 1978: Research on Climate of Mt. Kenya (Kenya):
- 1980-1988: WESAT-Programme at University of Berne: Establishing of a Satellite-Data-Receiving Station and Evaluation Programme at UoBerne
- 1982-1988: Initiator and Director of an Interdisciplinary Research Programme in Laikipia/Mount Kenya (LRP), financed by SDC
- Several projects on climate, climate history and ecology in African High Mountains (together with Prof. B. Messerli, Berne). 1989-2009 several projects financed by DFG (Kenya, Lesotho (Draakensberge))
- 1989-1995: Topoclimatological Research Programme in North-Rhine-Westfalia (Germany)
- 1991-1998 (2001): Co-Investigator of the DFG Research Consortium SFB 350: „Interactions of continental agents“
- 1989-1998: Co-Chair of the Pakistan-German Research Programme ‚Culture Area Karakorum‘ (CAK) and Coordinator of the sub-programmes in Climatology, Ecology, Man-Environment
- since 1996: Establishment of a dendro-climatological Lab at Bonn University in Cooperation with the Research Centres of Juelich and WSL (Birmensdorf, Switzerland)
- 1998-2002(2004): Coordinator of the DFG-Project: „Man-Environment Research Consortium ‚Loetschen‘ (Swiss Alps)“
- 2000-2009: Co-Investigator of BMBF-Project: GLOWA-IMPETUS (Climate and Snow-Hydrology of the High Atlas, Morocco)
- After 1999: DFG/BMZ/Univ. Bonn: a number of projects on climate, climate-history, landscape dynamics, use of natural resources in the Karakorum/Western Himalaya/Hindukush (Northern Pakistan)

## 5. Supervised MSc- and PhD-Thesis‘

In the context of the above mentioned research activities, mainly in Bonn, a number of MSc- and PhD-Thesis‘ have been produced under my guidance.

- 75 MSc-Thesis (Diplom)
- 25 PhD-Thesis (Dissertations )
- 5 Post-Doc-Thesis (Habilitationen)

Some 10-12 of my former students are on positions as Full-Professors at highly ranked universities in Germany, Switzerland, France, England.

## 6. Selection of publications referring to Hindukush-Karakoram-Himalaya (HKH), climate, mountain research (after 1995)

BANO, Asghari, REHMAN, Abdul, WINIGER, Matthias (2009): Altitudinal variation in the content of protein, proline, sugar and abscisic acid (ABA) in the alpine herbs from Hunza Valley (Pakistan). *Pakistan Journal of Botany*, 41(4): 1593-1602.

BARTHLOTT, W. & WINIGER, M. (Eds., 2001) *Biodiversity – A Challenge for Development Research and Policy*, 2<sup>nd</sup> Ed., 429 p., Springer, Heidelberg.

BOERST, U. & WINIGER, M. (2014) Assessing Water Balance in the Upper Indus Basin. In: *Mountains and Climate Change - A Global Concern. Sustainable Mountain Development Series*, CDE, SDC and Geogr. Bernensia, p. 37-39.

ESPER, J., SCHWEINGRUBER, F. H. & WINIGER, M. (2002) 1.300 Years of Climate History for Western Central Asia Inferred from Tree-Rings. *The Holocene*, 12, 267-277.

FRIEDRICH, D., NEUWIRTH, B., LÖFFLER, J. & WINIGER, M. (2007) Dendroclimatology in the Low Mountain Ranges, Germany. *TRACE - Tree Rings in Archaeology, Climatology and Ecology*. pp.97-102. Tervuren.

KARKI, M.B., SHRESTHA, A.B. & WINIGER, M. (2011): Enhancing Knowledge Management and Adaptation Capacity for Integrated Management of Water Resources in the Indus River Basin. *Mountain Research and Development*, 31:242-251.

MIEHE, G., WINIGER, M., BÖHNER, J. & YILI, Z. (2001) The Climatic Diagram Map of High Asia. Purpose and Concepts. *Erdkunde* 55, 94-97.

MIEHE, S., CRAMER, T., JACOBSEN, J.-P. & WINIGER, M. (1996) Humidity Conditions in the Western Karakorum as Indicated by Climatic Data and Corresponding Distribution Patterns of the Montane and Alpine Vegetation. *Erdkunde* 50, 190-204.

NEUWIRTH, B., SCHWEINGRUBER, F. H. & WINIGER, M. (2007) Spatial Patterns of Central European Pointer Years from 1901 to 1971. *Dendrochronologia*, 24, 79-89.

NEUWIRTH, B. & WINIGER, M. (2004) NAO and Tree Rings - A dendroclimatological network analyses of Central European chronologies. *TRACE - Tree Rings in Archaeology, Climatology and Ecology*. pp.58-66. Utrecht.

PARVEEN, S, WINIGER, M., SCHMIDT, S. & NÜSSER, M. (2015): Irrigation in Upper Hunza: Evolution of Socio-Hydrological Interactions in the Karakoram, Northern Pakistan. In: *Erdkunde*, Vol. 69 (1): 69-85.

SCHMIDT, S., WEBER, B. & WINIGER, M., (2009) Analyses of seasonal snow disappearance in an alpine valley from micro- to meso-scale (Loetschental, Switzerland). *Hydrol. Process.* 23:1041-1051.

STELLRECHT, I. & WINIGER, M. (Eds., 1997) Perspectives on History and Change in the Karakorum, Hindukush and Himalaya. *Culture Area Karakorum Scientific Studies*. Köln.

TREYDTE, K., SCHLESER, G. H., HELLE, G., WINIGER, M., FRANK, D. C., HAUG, G. H. & ESPER, J. (2006) The Twentieth Century was the Wettest Period in Northern Pakistan over the Past Millennium. *Nature*, 440, 1179-1182.

WINIGER, M. (2003) Zum 100. Geburtstag von Carl Troll: Eine Einführung. Carl Troll: Zeitumstände und Forschungsperspektiven. Kolloquium im Gedenken an den 100. Geburtstag von Carl Troll. *Colloquium Geographicum*. (ed. by M. WINIGER), pp.11-14. Bonn.

WINIGER, M. (2018) Hochgebirgsräume im Umbruch – Prozesse, Forschungsfragen, Beispiele. In: LOZAN, J.L., S.-W. BRECKLE, H. GRASSL et al (Hrsg.). *Warnsignal Klima, Extremereignisse*, S.307-311

WINIGER, M. (2020) Hochgebirge als Ressourcenräume für Tiefländer. In: LOZAN J.L., S.-W. BRECKLE, H. GRASSL et al (Hrsg.). *Warnsignal Klima: Hochgebirge im Wandel*, S. 70-77.

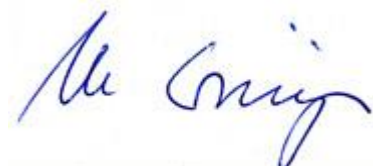
WINIGER, M. (1998) Northern Pakistan. Topographic Map of the Northern Areas. (ed. by R. SPOHNER & G. STORBECK). DFG-Project CAK, Bonn.

WINIGER, M. (Ed., 1995) Excursion Guides. Vol. 1: Chitral (Israr-ud-Din, E. Bauer, U. Schickhoff); Vol. 2: Hunza (A.H. Dani, M. Said, H. Kreutzmann); Vol. 3: Nanga Parbat (M. Winiger, J. Clemens, M. Nüsser); Vol. 4: Deosai Plateau & Baltistan (G. Miehe, A. Dittmann). *Int. Symposium on 'Karakorum-Hindukush-Himalaya: Dynamics of Change'*. Pak-German Research Project 'Culture Area Karakorum', Tübingen & Bonn.

WINIGER, M. & BÖRST, U. (2003) Landschaftsentwicklung und Landschaftsbewertung im Hochgebirge. Bagrot (Karakorum) und Lötschental (Berner Alpen) im Vergleich. *Welt der Alpen - Gebirge der Welt : Ressourcen, Akteure, Perspektiven*. (ed. by U. WIESMANN, F. JEANNERET, M. SCHWYN & D. WASTL-WALTER), pp.45-59. Bern.

WINIGER, M., GUMPERT, M. & YAMOUT, H. (2005) Karakorum-Hindukush-Western Himalaya: Assessing High Altitude Water Resources. *Hydrol. Process.*, 19: 2329-2338.

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