

CURRICULUM VITAE

PERSONAL INFORMATION

Prof., Dr., Maia Akhalkatsi



Date and place of birth: December 30th, 1959, Gurjaani, Georgia.

Nationality: Georgian.

Gender: Female.

Postal Address: Ilia State University, K. Cholokashvili Ave. 3/5, 0162 Tbilisi, Georgia.

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Present position: Head of the Department of Plant Genetic Resources, Institute of Botany; Professor, School of Natural Sciences and Engineering, Ilia State University.

EDUCATION:

1966-1976 2nd Public School, Shilda, Georgia, graduated with gold medal.

1976-1981 Tbilisi State University, Tbilisi, Georgia, graduated with red diploma.

1981-1984 Postgraduate School at the Komarov Botanical Institute, St.Peterburg, Russia.

1997-04/07 IREX Fellowship, Portland, Oregon, USA.

1997-1999 Alexander von Humboldt Fellowship, Düsseldorf, Germany.

ACADEMIC DEGREES:

1981/June 25th Master of Science (Molecular Biology), Tbilisi State University.
Diploma G-1 # 171724.

1986/January 15th PhD (Cand. Biol. Sci., Botany), the Komarov Botanical Institute, St.Peterburg, Russia. Diploma BL # 016282.

2006/May 15th Doctor of Biological Sciences (Botany), Institute of Zoology, Georgian Academy of Sciences, Diploma # 001669.

WORK EXPERIENCE:

1985-1992 Scientific worker, Institute of Botany, Georgian Academy of Sciences, Tbilisi.

1992-2002 Senior scientist, Institute of Botany, Georgian Academy of Sciences, Tbilisi.

1997-2011 Chairman of the NGO "GSNE Orchis".

Since 2002 Head of the Department of Plant Genetic Resources, Institute of Botany, Ilia State University, Tbilisi.

2006-2013 Associated Professor, Faculty of Life Sciences, Ilia State University, Tbilisi.

Since 2013 Professor, School of Natural Sciences and Engineering, Ilia State University, Tbilisi.

LECTURER:

1992-1994 Biology course, College of Natural Sciences at the Institute of Physics of Georgian Academy of Sciences, Tbilisi.

1999-2001 Biology course, Faculty of Physics, I. Javakhishvili Tbilisi State University, Tbilisi.

2006-2012 MSc "Plant taxonomic features", "Plant reproductive ecology", Faculty of Life Sciences, Ilia State University, Tbilisi.

2010 -2011 PhD course "Plant morphology and genetic resources", Institute of Ecology, Ilia State University, Tbilisi.

- Since 2012** BSc “Botany”, “Flawless profits: sustainable use of economic plants”, School of Natural Sciences and Engineering, Ilia State University, Tbilisi.
- Since 2014** Practical BSc “Habitat identification”, “Useful plants and fruits”; MSc “Ecosystems ecology”, “Wildlife and habitat biodiversity”, “Non-timber Forest and Nature Products, Management, Processing and Utilization”, School of Natural Sciences and Engineering, Ilia State University, Tbilisi.

MAIN PROFESSIONAL INTERESTS:

Plant morphology, anatomy and reproduction biology, plant genetic resources, crop wild relations, domestication, agrobiodiversity, plant diversity, plant reproductive ecology, vegetation mapping, plant conservation.

MAIN PROFESSIONAL EXPERIENCE:

Light microscopy, electron microscopy, tissue culture, comprehensive biometric methods, GIS.

FELLOWSHIPS:

- Austria - 1992, 1993, 1994, 2000, 2001, - Austrian Academy of Sciences; 2008 - OeBF.
- Germany – 1993 Ministry of Culture and Education of Bayern, 1995 - DAAD, 1997-1999, 2000, 2004; 2007 -Alexander von Humboldt Foundation; 2000 - Dönhoff Foundation, 2008, 2010, 2016- Giessen University.
- USA – 1997-IREX; 2004 – GRDF/CRDF; 2014 - NSF.
- Switzerland – 2000 – SNF, Scopes, travel grant; 2008 - WSL, 2009- GTZ.

GRANTS:

1. International Science Foundation 1994 (MX000), 1996 (MX200) “Reproductive biology and seed development in three *Astragalus* species in Georgia”.
2. Georgian Academy of Sciences - 1997-1999: “Reproductive Biology of Flowering Plants”;
3. COBASE Grants Program – 1997 – Project Development Grant: “Phylogenetic studies in *Iris* subgenus *Iris* using morphological and molecular data.” US visitor C. Wilson, Portland State University, Portland, Oregon, USA.
4. Georgian Academy of Sciences 2000-2002, 2003-2005: „Study of seed development of some rare species of Georgian flora and their conservation in the stations of the Institute of Botany“.
5. EU 5th Framework Program, 2000-2003 GLORIA-EUROPE “The Global Observation Research Initiative in Alpine Environments”. Project coordinator G. Grabherr, University of Vienna, Vienna, Austria.
6. Volkswagen Foundation – 2002-2005: “Pharmaceutical value of onions and related species (*Allium* L.) Of middle Asia and the Caucasus (PharmAll)”; Coordinator M. Keusgen, University of Marburg, Germany.
7. The Willowood Foundation - 2002. “Rare plant introduction in the Kazbegi Research Station.” Coordinator GSNE “Orchis”.
8. bp Economy and Ecology in Harmony I, 2002-2003, “Inventory and Conservation of Orchid Diversity in Georgia.” Coordinator GSNE “Orchis”.
9. GRDF/CRDF – Georgia-US Bilateral Grants Program I, 2002-2005: “Alpine Tree line Stability in a Changing Global Environment: Mechanisms of Tree Seedling Establishment.” (Award # GP1-3322-TB-02). US coordinator W.K. Smith, Wake Forest University, NC, USA.

10. CRDF – Caucasus – U.S. Scientific Workshops Program 2003. “Plant Interactions and the Effect of Global Warming on Alpine Biodiversity.” (Award GX0-1043-TB-02). U.S. Organizer: Ragan M. Callaway, University of Montana, Missoula, Montana, USA.
11. bp Economy and Ecology in Harmony II, 2004-2005, “Diversity and Conservation of the Economically Important Plant Family Iridaceae in Georgia.” Coordinator GSNE “Orchis”.
12. GRDF/CRDF – US-Georgia Bilateral Program II - 2005-2006: “Ecological Facilitation in the Alpine Treeline Ecotone of Georgia: Implications for Future Global Change.” (Award GEB1-3335-TB-03). US coordinator W.K. Smith, Wake Forest University, NC, USA.
13. bp Economy and Ecology in Harmony III, 2005-2006, “Diversity and Conservation of Iris Family in Georgia.” Coordinator GSNE “Orchis”.
14. UNDP – 2005-2006, “Conservation and Sustainable Utilization of the Endangered Medicinal Plants in Samtskhe-Javakheti.” in the framework of the ELKANA agrobiodiversity Program.
15. Swiss Agency for Development and Cooperation (SDC), 2005-2006, Pilot project on “Optimizing grazing regimes in subalpine grassland in the Central Caucasus.” Swiss coordinator: Prof. Ch. Körner (Chair Global Mountain Biodiversity Assessment, GMBA of DIVERSITAS, Paris; Institute of Botany, University of Basel, Schönbeinstr. 6, CH-4056 Basel, Switzerland).
16. NSF - U.S.-Georgia: “Ecological facilitation by *Rhododendron caucasicum* extends the *Betula litwinowii* alpine treeline, Caucasus Mountains of Georgia.” (Award #0523130). 10.08.2005-31.07.2007. US coordinator W.K. Smith, Wake Forest University, NC, USA.
17. bp Economy and Ecology in Harmony IV, 2006-2007, “Inventory and Sustainable Utilization of the Endangered Edible Trees and Shrubs in Georgia.” Coordinator GSNE “Orchis”.
18. Scope - 2006-2008. (Project no. 110670) – “Towards sustainable use of mountain pastures in the Central Caucasus: effects of recent land use changes on plant diversity and soil stability.” Swiss coordinator: Prof. Ch. Körner (Chair Global Mountain Biodiversity Assessment, GMBA of DIVERSITAS, Paris; Institute of Botany, University of Basel, Schönbeinstr. 6, CH-4056 Basel, Switzerland).
19. Georgian Centres of Research and Education (CoRE) Program 2006, - “Exploring biodiversity of the Caucasian “biodiversity hotspot” with modern molecular-genetic methods and analytical tools”. Proposed Centre Name: Centre of biodiversity studies at the Faculty of Life Sciences coordinator D. Tarkhnishvili in the Ilia State University.
20. EU 6th Framework Program – 2007-2009, “Management and Conservation of Grapevine Genetic Resources (GrapeGen06).” Grant under Council Regulation (EC) No 870/2004, Proposal GEN RES 2005 008. Roberto Bacilieri, Institut National de la Recherche Agronomique – INRA, Att: Bernard ITIER 2, Place P. Viala F – 34060 Montpellier, France.
21. GRDF/CRDF – US-Georgia Bilateral Program III - 2007-2009: “Facilitation of birch seedling establishment by an evergreen Rhododendron at alpine treeline in the Caucasus Mountains of Georgia.” (Award GEB2-3341-TB-06). US coordinator W.K. Smith, Wake Forest University, NC, USA.
22. UNDP – 2008-2009, “Conservation and Sustainable Utilization of the Crop Wild Relatives in Samtskhe-Javakheti.” in the framework of the ELKANA agrobiodiversity Program.
23. IPK-Gatersleben - 2008-2012, "Collection of crop genetic resources in Georgia". German Coordinator K. Pistrick, Leibniz Institute of Plant Genetic and Cultivated Plants (IPK), Gatersleben, Germany.
24. Volkswagen Foundation Program "Between Europe and the Orient" – 2010-2013: AMIES I "Analysing multiple interrelationships between environmental and societal processes in mountainous regions of Georgia - Interdisciplinary research to foster sustainable land use, land development, and quality of life." German Coordinator Annette Otte, University Giessen.

25. Scope - 2009-2012. (Project no. IZ73Z0_128057) – "Mountain biodiversity in the Caucasus and its functional significance". Swiss coordinator: Prof. Ch. Körner (Chair Global Mountain Biodiversity Assessment, GMBA of DIVERSITAS; Institute of Botany, University of Basel, Basel, Switzerland).
26. NSF program 'phylogenetic systematics' award #1020826: Phylogeny and development in *Iris* subgenus *Iris* and related species: September 1, 2010/August 31, 2013. Principal Investigator - Carol Wilson (carol.wilson@cgu.edu), Rancho Santa Ana Botanic Garden 1500 North College Avenue Claremont, CA 91711 714/626-3922, USA.
27. The Quarry Life Award 2012. - Environmental Education Program for Biodiversity Conservation during the Rehabilitation Process of Limestone Quarry.
28. NSF program 'phylogenetic systematics' award #1020826: Phylogeny and development in *Iris* subgenus *Iris* and related species: 2014-2016. Principal Investigator Prof. Dr. Carol Wilson (carol.wilson@cgu.edu), Rancho Santa Ana Botanic Garden 1500 North College Avenue Claremont, CA 91711 714/626-3922, USA.
29. Volkswagen Foundation Program "Between Europe and the Orient" project "AMIES II - Developing sustainable land use options for mountainous regions in Georgia.": 2014-2017; German Coordinator Prof. Dr. Annette Otte (annetteotte@compuserve.com), University Giessen.
30. Project of Ilia State University Botany Institute (2014-2018): Study of diversity of plants, identification of natural vegetation resources, processing scientific and practical recommendations for sustainable use and practical recommendations.
31. "Central Asian and Caucasian Studies and Higher Education Accent". 01/2016-12/2018. Volkswagen Foundation Program: "Between Europe and Asia". Prof. Dr. Anette Otte, Giessen University, Germany.
32. NSF program 'phylogenetic systematics': Phylogeny and development in *Iris* subgenus *Iris* and related species: 2017 - 2020. Principal Investigator – Prof. Dr. Carol Wilson (carol.wilson@cgu.edu), Rancho Santa Ana Botanic Garden 1500 North College Avenue Claremont, CA 91711 714/626-3922, USA.

CONFERENCE VISITS:

1. Conference in Georgia 12 December 2017 in Tbilisi, of Joint Rustaveli-DAAD-Fellowship Programme: Presentation of the Projects 2017 Date: Georgia Ivane Javakhishvili Tbilisi State University, conference room N115 Address: N1 Ilia Chavchavadze Avenue.
2. Conference in Georgia: 28-29 September 2017: Amies II - Volkswagen Foundation funded by Georgia for the sustainable land use of the Caucasian Caucasus (2014-2017); Report: Field Exit at Dmanisi's Historic Places. Goethe Institute, German Federal Republic, Tbilisi.
3. Conference in Georgia 20-22 September 2017: Prospects of German and Georgian development and the role of Humboldt's colleague. Response: Alpine Crop Wild Relatives in Georgia (The Caucasus). <http://humboldt-kolleg.com/speakers/info/116> - Maia Akhalkatsi. Javakhishvili University, <http://humboldt-kolleg.com/>.
4. Conference in Germany: Amies II - Volkswagen Foundation (2014-2017) financed by Georgia for the sustainable land use of the Caucasus. Reports: Maia Akhalkatsi, "Varieties of Agro-Diversity and Genetic Erosion Crops and Vegetable Resources in the Central Caucasus". May 18-20, 2016, Gisen, Germany.

5. Science in Georgia: BGCI / Plantlife International Seminar The volume of construction is important to identify the Plant Territories (IPAS) in Georgia's Botanical Garden. Report: Sensitive Habitats of Nature2000 Forest in Georgia ". February 16-18, 2016 Batumi, Georgia.
6. A. v. Humboldt Society Conference - Akhalkatsi M., Kimeridze M. "Natura2000 sensitive forest habitats of Georgia". Tbilisi. 4-7 July, 2015.
7. American Botanical Society - Akhalkatsi, M., Togonidze, N., Smith W.K. Seed germination requirements in two dominant treeline species –*Betula litwinowii* and *Rhododendron caucasicum*, in the Central Greater Caucasus. Boise, Idaho, USA. 26-31 July, 2014.
8. Georgia's natural heritage and the world heritage conservation. National consultation and planning workshop. Tbilisi. 3-4 April 2014.
9. Illegal Wildlife Trade Working Group Workshop. First Meeting. Maia Akhalkatsi. "–Medicinal Plants Conservation". Tbilisi. Friday, 18 October, 2013.
10. International Scientific-Practical Conference "Current Challenges of Sustainable Forest Management in Caucasus" 1) Maia Akhalkatsi & Mariam Kimeridze. "Natura2000 priority forest habitats of Georgia"; 2) Natalia Togonidze, Maia Akhalkatsi, Rainer Waldhardt. "Plant species diversity changes during natural reforestation of Birch forest". Tbilisi, 07-08 October, 2013.
11. Volkswagen Foundation - 'Natural Resources, Energy and the Environment for Central Asia and the Caucasus'. Tbilisi. 7-10 March, 2013.
12. GMBA mountain biodiversity conference. Akhalkatsi M. "Crop diversity in mountain regions of Georgia". Stepantsminda. 21-24 June, 2012.
13. Tempus project Asp2PhD Development of best practice model Doctoral Schools for structured PhD programmer implementation in Ukraine and Georgia, Moylan Academy University. Kiev. 10-13 May 2012. Report - „Research in Plant Ecology and Diversity at ISU“.
14. XXIII IUFRO World Congress. Forests for the Future: Sustaining Society and the Environment. Akhalkatsi, M., Kimeridze, M. Implementation of the classification system of forest habitats in accordance with the Natura2000 standards in the Georgian Legislation. COEX Seoul, Republic of Korea. 23-28 August, 2010.
15. 2nd International GMBA-DIVERSITAS conference "Functional significance of mountain biodiversity" in Chandolin (Valais). Nakhutsrishvili, G. Abdaladze, O. Akhalkatsi, M., Batsatsashvili, K. Sharikadze, Kh. Alpine plant diversity and function in the Central Caucasus. Switzerland. 26-30 July, 2010.
16. Climate Change Curricula in Higher Education in Tbilisi. Tbilisi, Georgia. 7 June, 2010.
17. Kick-off Meeting AMIES I - Analysing multiple interrelationships between environmental and societal processes in mountainous regions of Georgia. Interdisciplinary research to foster sustainable land use, land development, and quality of life. Tbilisi-Kazbegi-Bakuriani. 23-29, May, 2010.
18. Between Europe and the Orient –A Focus on Research and Higher Education in/on Central Asia and the Caucasus. Tbilisi, Georgia. 19-21 May, 2010.
19. Hintermann & Weber AG - Biodiversity monitoring training courses. Basel-Bern, Switzerland. September, 2009.
20. "The role of botanic gardens in Georgia – Opportunities and challenges for the future". BGCI Georgia Workshop, Tbilisi, Georgia. 21-23 May, 2009.
21. "Scientific Cooperation with Developing Countries - the Swiss Guidelines and their Implementation", Volkswagen Foundation workshop. Bonn, Germany. 13-14 November, 2008.
22. "Natura2000" Training Courses in OeBF. Vienna, Austria. 7-12 September, 2008.

23. Swiss Federal Institute - WSL training courses and botanical excursion in Swiss Alps. Birmensdorf. Switzerland. 20-31 July, 2008.
24. Training courses in Giessen University, Institute of Landscape Ecology. Giessen, Germany. 01-16 May, 2008.
25. "Botanikertagung 2007", Akhalkatsi M., Smith W., Abdaladze O., and Nakhutsrishvili G. Seed germination in two dominant treeline species *Betula litwinowii* and *Rhododendron caucasicum* in the Central Caucasus. Conference. Poster presentation. Hamburg, Germany. <http://www.biologie.uni-hamburg.de/bt07/>. 3-7 September, 2007.
26. First Kazbegi workshop on „Botany, taxonomy and phytochemistry of wild *Allium* L. species of the Caucasus and Central Asia“, Akhalkatsi M. "Comparative Flower Morphology of some *Allium* species. Kazbegi, Caucasus, Georgia. 4 – 8 June, 2007.
27. Workshop INTAS – South-Caucasus 2006, Scientific Cooperation and Collaborative Call. Tbilisi, Georgia. 19-21 April, 2006.
28. Ophrys 2005. Akhalkatsi M., Lorenz R., Mosulishvili M. Orchids and their habitats in Georgia. Chios, Greece. 14-16 April, 2005.
29. A. v. Humboldt Stiftung Konferenz „Süd Kaukasus auf dem Weg nach Europa“. Akhalkatsi M. Beitrag des georgischen Teams zum Network "Die europäische Dimension der Forschungsinitiative der Globalbeobachtung in der alpinen Umwelt (GLORIA)". Tbilisi, Georgia. 24-26 October, 2005.
30. International Botanical Congress. Akhalkatsi M., Wagner J., Kobakhidze L. Life strategy of the subnival species of *Cerastium* (Caryophyllaceae) from the Central Greater Caucasus and the Alps. Vienna, Austria. 18-22 July, 2005.
31. Orchid Conference. Swaebisch Gmuend, Germany. 25-27 September, 2004.
32. "Botanikertagung 2004". Akhalkatsi M., Abdaladze O., Nakhutsrishvili G., Smith W.K. 2004. Global warming effect on birch seedling establishment at treeline in the Central Caucasus. Braunschweig, Germany. 5-11 September, 2004.
33. Annual Meeting of the Botanical Society of America. Akhalkatsi M., Abdaladze O., Smith W.K., G. Nakhutsrishvili. 2004. Mechanisms of Treeline Stability in the Caucasus Mountains of Georgia: Low-temperature Photoinhibition and Interspecific Facilitation. Salt Lake City, USA. 5-8 August, 2004.
34. Plant Interactions and Global Warming Effect on Alpine Biodiversity, Kazbegi. 30 June-5 July, 2003.
35. Third EUFORGEN Conifers Network meeting, Kostrzyca, Poland. 17-19 October, 2002.
36. "Botanikertagung" 2002. Akhalkatsi M., Lösch R. Relationships between seed coat color and germination percentage in *Trigonella coerulea* (L.) Ser. (Fabaceae). <http://www.botanicertagung.de/detail.asp?AutonumberID=167>. Freiburg, Germany. 22-29 September, 2002.
37. "Botanikertagung" 2000. Akhalkatsi M. Reproductive biology of three *Astracantha* species in Caucasus. Botanikertagung. Jena, Germany. 17-22 September, 2000.
38. GMBA conference. Nakhutsrishvili G., Akhalkatsi M. Mountain biodiversity in the Caucasus. 1st Inter. Conf. on Mountain Biodiversity. Rigi-Kaltbad, Switzerland. 7-10 September, 2000.
39. Orchis 2000 conference. Akhalkatsi M., Kimeridze M., Lorenz R., Mosulishvili, M. Orchids of Georgia. Verona, Italy. 14-22 May, 2000.
40. XVI International Botanical Congress. Akhalkatsi M. 1999. Reproductive biology of two high mountain species of *Primula* in the central Caucasus. St. Louis, USA. 1-7 August, 1999.
41. Stigma-Pollen Interaction Conference. Akhalkatsi M. 1999. Pollination and non-random ovule abortion in *Melilotus officinalis*. Oxford, UK. 18-21 July, 1999.

42. Int. Conf. Monocots II. Wilson C., Akhalkatsi M. A phylogenetic study of *Iris* subgenus *Iris* from Georgia and surrounding areas in Central Asia. Sydney, Australia. 27.09-02.10.1998.
43. „Botanikertagung“ 1998. Akhalkatsi M., Lösch R. Water relations of seed germination and seedling development in *Trigonella coerulea* (Fabaceae). Bremen, Germany. 30.08-6.09 1998.
44. XVth International Congress on Sexual Plant Reproduction: 1) Akhalkatsi M., Lösch R. Resource limitation effect on seed development and germination of *Trigonella coerulea* (Fabaceae). 2) Akhalkatsi M., Calvin C. 1998. Ovule and seed development in *Melilotus alba* and *M. officinalis* (Fabaceae). Wageningen, the Netherlands. 16-21 August, 1998.
45. VIIth International Congress of Ecology. Akhalkatsi M. Population and reproductive ecology of three species of *Astracantha* Podlich (Fabaceae) in Caucasus. Florence, Italy. 19-25 July, 1998.
46. XI Int. Symp. Embryology and Seed Reproduction. 1) Akhalkatsi M., Gvaladze G., Chochia K. 1990. “Endospermogenesis in Indian *Lotus*”; 2) Chochia, K., Akhalkatsi, M., Gvaladze, G. “Substance transport in embryo sac of Indian lotus”. St. Peterburg, Russia. August, 1990.
47. V Int. Cong Ecology. Gvaladze G., Akhalkatsi M. Plant adaptation to factors of environment. Yokohama, Japan. August, 1990.
48. X Int. Symp. Sex. Rep. Higher Plants, Gvaladze G., Akhalkatsi M. Some aspects of the double fertilization. Siena, Italy. August, 1988.

MEMBERSHIPS:

Botanical Society of America since 1997.
 Botanical Society of Germany since 1998;
 Member of IASPRR since 1998.
 Member of NGO “GSNE Orchis” since 1997.
 Member of Georgian Botanical Society since 2015.

COURSE CATALOG:

MSc “Plant taxonomic features” (2006-2018), “Plant reproductive ecology” (2006-2018), PhD course “Plant morphology and genetic resources”, Institute of Ecology, Ilia State University, Tbilisi (2010-2018).

HONOURS, AWARDS, MEMBERSHIP OF PROFESSIONAL SOCIETIES FELLOWSHIPS:

2012 “Who's Who in the World”. 29th ed. Marques Who's Who publication board;
 2012 The Sir Isaac Newton Scientific Award of Excellence;
 2012 HeidelbergCement the quarry life award;
 2018 Citation: 1325; h-index: 12; impact factor: 91.071.

LANGUAGES: Reading, speaking and writing fluent in English, German, Russian, Georgian.

WEB-PAGES:

https://www.researchgate.net/profile/Maia_Akhalkatsi/
<https://scholar.google.com/citations?user=SLNYbL0AAAAJ&hl=en>
<http://eprints.iliauni.edu.ge/view/creators/Akhalkatsi=3AMaia=3A=3A.html>

TBILISI, 08.02.2018