

SALAKO Kolawolé Valère, Dr. Eng.

Forestry and Agroforestry

Born on 28/04/1986 in republic of Benin, Male, Beninese
Maried with 1 daughter

CONTACTS

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EDUCATION

- **PhD, Life Sciences** - Plant Ecology and Conservation (December 2012 – February 2016) [First class honour], Faculty of Sciences and Techniques, University of Abomey-Calavi, Benin. Defended on February 8th, 2016
- **Master Degree** [Ongoing, to be completed in December 2016], Biostatistics, School of Environment management, Faculty of Agronomic Sciences, University of Abomey-Calavi, Benin.
- **Master Degree** [Graduated First], Management of natural resources and Biodiversity (2012), School of Environment management, Faculty of Agronomic Sciences, University of Abomey-Calavi, Benin.
- **Agricultural Engineer degree** [Graduated First], Management of natural resources (2011), School of Environment management, Faculty of Agronomic Sciences, University of Abomey-Calavi, Benin.
- **Bachelor** (Equivalence of the Diploma of General Agronomy) [Graduated First], (2009), Faculty of Agronomic Sciences, University of Abomey-Calavi, Benin.

RESEARCH AREAS

Forest methods — Forest Ecology and Management — Conservation Biology — Traditional agroforestry systems — Ethnobotany — Climate change — Biostatistics

RESEARCH INTERESTS

My research focuses on three main axes: **Biodiversity, ecosystems services and conservation of plants in traditional agroforestry systems** (with focus on parklands and home-gardens), **Ecology** (synergistic effect of Non-timber forest products harvest and ecological conditions on population structure and demography of plants, plant-animal interactions, plant ecology, forest ecology, and climate change) and **Forest methods** (plot size optimization for study of tropical vegetation).

WORK EXPERIENCES

- December 2015 to Present: **Scientific coordinator** at the Laboratory of Biomathematics and Forest Estimations (www.labef-uac.org), Faculty of Agronomic Sciences, University of Abomey Calavi, Republic of Benin.
- 2011-2015: **Research Assistant** at the Laboratory of Applied Ecology, Faculty of Agronomic Sciences, University of Abomey Calavi, Republic of Benin.

RESEARCH AND CONFERENCES AWARDS /FELLOWSHIPS / DISTINCTIONS

- 2016.** – African-German Network of Excellence in Science (AGNES) Grant for Junior Researchers
– African capacity building foundation, grant to develop 2016 AfCOP knowledge products.
- 2015.** – Tropical Biology Association full bursary for field training in Tropical Conservation in Kirindy Forest (Madagascar).
– 2015 ICCB-ECCB Travel Awards Winner
– RUFORUM Graduate Research Grant (Co-Applicant).
– IDEA-WILD equipment grant.
- 2013.** – IFB-DNRST (Institut Français du Bénin-Direction Nationale de la Recherche Scientifique et

- Technique). Best scientific poster of the year 2013 in Benin.
- IFS (International Foundation for Science) research Grant N° D/5448-1.
- University of Abomey-Calavi PhD research fellowship.
- Conservation Science Group of the University of Cambridge. Full bursary to attend the 14th Student Conference on Conservation Science and a short course on data mining using R.
- SADA (Applied Statistics for Development in Africa). Full bursary to attend the 2nd edition of the SADA Conference.

- 2012. – Coopération Universitaire pour le Développement (Belgium) - Prize of the best Student.
- 2011. – Belgium-West African countries master program (RESBIO). Full scholarship for M.Sc. studies in Management of Natural Resources and Biodiversity.
- 2011. – “Africa Scientific Rebirth” Prize. Prize for the Best Engineer Dissertation of the academic year 2009-2010
- 2005. – Full national five years scholarship for Agricultural Engineer degree studies.

SCIENTIFIC PUBLICATIONS (Articles and theses)

Peer reviewed journals

To date, I have 22 articles published, 4 articles in press and 5 manuscripts under review

In press

- Assogba G.A., Fandohan A.B., **Salako V.K.**, Assogbadjo A.E. Ethnobotanique de *Bombax costatum* (Malvaceae) dans les terroirs riverains de la Réserve de Biosphère de la Pendjari, Bénin. *Bois et Forêts des Tropiques*.
- Houndonougbo J.S.H., **Salako V.K.**, Idohou R., Azihou F.A., Assogbadjo A.E, Glèlè Kakaï R. Local perceptions of elephant-*Borassus aethiopum* Mart (Arecaceae) interactions in the Pendjari National Park in Benin. *Bois et Forêts des Tropiques*.
- Gandji K., **Salako V.K.**, Assogbadjo A.E., Orekan V.O.A., Glèlè Kakaï R.L., Sinsin B. Evaluation of the sustainability of participatory management of forest plantations: The Case study of the Wari-Marou Forest Reserve, Benin (West Africa). *Southern Forests*.
- Salako V.K.**, Houéhanou T.T., Yessoufou K., Assogbadjo A.E., Akoègninou A., Glèlè Kakaï R.L. Patterns of elephant utilization of *Borassus aethiopum* Mart. and its stand structure in the Pendjari National Park, Benin, West Africa. *Tropical Ecology*.

Published

Year 2016

- Gbedomon R.C., Assogbadjo A.E., **Salako V.K.**, Fandohan A.B., Glèlè kakaï R. 2016. Exploring the spatial configurations of home gardens in Benin. *Scientia Horticulturae* 213: 13–23.
- Agbahoungba S., Assogbadjo A.E., Chadare F.J., Idohou R., **Salako V.K.**, Agoyi E.E., Glèlè Kakaï R.L. 2016. Ecological diversity and conservation of Wild Edible Fruit Trees species in the Lama Forest Reserve in Benin (West Africa). *Bois et Forêts des Tropiques* 329 (3): 53-65.
- Gbedomon R.C., **Salako V.K.**, Chadare F.J., Glèlè Kakaï R., Assogbadjo A.E. 2016. Gendered motivation for home gardening and maintenance of agrobiodiversity: a case study in Benin, West Africa. *Annales des sciences agronomiques* 20 (2) : 93-106.
- Gbedomon, R.C., Floquet A., Mongbo R., **Salako V.K.**, Fandohan A.B., Assogbadjo A.E., Glèlè Kakaï R. 2016. Socio-economic and ecological outcomes of community based forest management: A case study from Tobé-Kpobidon forest in Benin, Western Africa. *Forest Policy and Economics* 64:46-55.
- Mensah S., Assogbadjo A., **Salako V.K.**, Ago E., Glèlè Kakaï R. 2016. Accounting for tree spatial

distribution in a comparison of plot sizes and shapes in dense forest and woodland in Benin (West Africa)". *African Journal of Ecology* 54: 87–94.

Glèlè Kakai R., **Salako V.K.**, Padonou E.A., Lykke A.M. 2016. Méthodes statistiques multivariées utilisées en écologie. *Annales des Sciences Agronomiques* 20: 139-157.

Glèlè Kakai R., **Salako V.K.**, Lykke A.M. 2016. Techniques d'échantillonnage en étude de végétation. *Annales des Sciences Agronomiques* 20 : 1-13.

Year 2015

Salako V.K., Assogbadjo A.E., Adomou A.C., Agbangla C., Glèlè Kakai R.L. 2015. Latitudinal distribution, co-occurring tree species and structural diversity of the threatened palm *Borassus aethiopum* (Arecaceae) in Benin, West-Africa. *Plant Ecology and Evolution* 148 (3): 335–349.

Salako V.K., Azihou A.F., Assogbadjo A.E., Houéhanou T.T., Kassa B.D., Glèlè Kakai R.L. 2015. Elephant-induced damage drives spatial isolation of the dioecious palm *Borassus aethiopum* Mart. (Arecaceae) in the Pendjari National Park, Benin. *African Journal of Ecology*. 54 (1): 9-19.

Amagnidé A.G., **Salako V.K.**, Donou Hounsodé M., Sinsin F., Orékan V., Dan C., Glèlè Kakai R. 2015. Ecological consequences of anthropogenic pressure in Wari-Marô Forest Reserve (Benin, West Africa). *Journal of Agriculture and Environment for International Development* 109 (2): 271-289.

Fandohan A.B., **Salako V.K.**, Assogbadjo A.E., Diallo B.O., Van Damme P., Sinsin B. 2015. Effect of climatic conditions on flowering and fruiting of *Tamarindus indica* (Fabaceae). *Journal of Horticulture and Forestry* 7(8): 186-192.

Gbedomon R.C., Fandohan A.B., **Salako V.K.**, Idohou A.F.R., Glèlè Kakai R., Assogbadjo A.E. 2015. Factors affecting home gardens ownership, diversity and structure: A case study from Benin. *Journal of Ethnomedicine and Ethnobiology* 11:56.

Gnonlonfoun I., Glèlè Kakai R., **Salako V.K.**, Assogbadjo A.E., Ouédraogo A. 2015. Structural analysis of regeneration in tropical dense forest: combined effect of plot and spatial distribution patterns. *Acta Botanica Gallica*. **162 (1)**: 79-87.

Tovissodé F.C., Honfo H.S., **Salako V.K.**, Gnanglè C.P., Mensah S., Glèlè Kakai R. 2015. Population structure of two bamboo species in relation to topographical units in the Republic of Benin (West Africa): implications for sustainable management. *Acta Botanica Gallica*. **162 (1)**: 89-96

Honfo H., Tovissodé F.C., Gnanglè C., Mensah S., **Salako V.K.**, Assogbadjo A.E., Glèlè Kakai R. 2015. Traditional knowledge and use value of bamboos in south-eastern Benin: implications for their sustainable management. *Ethnobotany Research and Applications* **14**: 139-153.

Year 2014

Salako V.K., Fandohan B., Assogbadjo A.E., Idohou F.A.R., Gbedomon R.C., Chakeredza S., Dulllo M.E., Glèlè Kakai R. 2014. Home gardens: An assessment of their biodiversity and potential contribution to conservation of threatened species and crop wild relatives in Benin. *Genetic Resources and Crop Evolution* **61**: 313–330.

Idohou R., Fandohan B., **Salako V.K.**, Kassa B., Gbedomon R.C., Yédomonhan H., Glèlè Kakai R.L. Assogbadjo A.E. 2014. Biodiversity conservation in home gardens: traditional knowledge, use patterns and implications for management. *International Journal of Biodiversity Science, Ecosystem Services & Management* **10 (2)**: 89 – 100.

Year 2013

Salako V.K., Glèlè Kakai R., Assogbadjo A.E., Fandohan B., Houinato M., Palm R. 2013. Efficiency of inventory plots patterns in the quantitative analysis of vegetation: case study of tropical woodland and dense forest in Benin. *Southern forests* 75 (3): 137–143

Houéto G., Glèlè Kakai R., **Salako V.K.**, Fandohan B., Assogbadjo A.E., Sinsin B., Palm R. 2013. Effect of inventory plot patterns in the floristic analysis of tropical woodland and dense forest.

African Journal of Ecology **52**: 257–264.

Salako V.K., Adebajji A., Glèlè Kakaï R. 2013. On The Empirical Performance Of Non-Metric Multidimensional Scaling In Vegetation Studies. *International Journal of Applied Mathematics and Statistics* **36 (6)**: 54-67.

Year 2012

Houéto G., Fandohan B., Ouédraogo A., Ago E., **Salako V.K.**, Assogbadjo A.E., Glèlè Kakaï R., Sinsin B. 2012. Floristic and dendrometric analysis of woodlands in the Sudano-Guinean zone: a case study of Belléfoungou forest reserve in Benin. *Acta Botanica Gallica* **159 (4)**: 387–394.

Fandohan B., Assogbadjo A.E., **Salako V.K.**, Van Damme P., Sinsin B. 2012. Which one comes first, the tamarind or the *Macrotermes termitarium*? *Acta Botanica Gallica* **159 (3)**: 345–355.

Under review

Gbedomon R.C., **Salako V.K.**, Adomou A., Glèlè kakaï R., Assogbadjo A.E. Revisiting the efficacy of home gardens in biodiversity conservation: a case study from Benin, West-Africa. *Biodiversity and Conservation*

Gandji K., **Salako V.K.**, Tovissodé F.C., Assogbadjo A.E., Orekan Glèlè Kakaï R.L. Morphological diversity of *Moringa oleifera* Lam. as related to ecological conditions and farmers' management practices in Benin (West Africa). *Agroforestry systems*

Salako V.K., Vihotogbé R., Houéhanou T., Sodé I., Glèlè Kakaï R. Predicting the potential impact of climate change on the declining agroforestry species *Borassus aethiopum* Mart. in Benin: a mixture of geostatistical and SDM approach. *Agroforestry systems*

Salako V.K., Kénou C., Dainou K., Assogbadjo A.E., Glèlè Kakaï R. Impacts of human disturbances and ecological variation on spatial patterns and neighbourhood distance of the agroforestry palm *Borassus aethiopum* Mart. in Benin, West Africa, *Agroforestry systems*

Goudegnon O.A.E. **Salako V.K.**, Gouwakinnou N.G., Oumorou M. Morphological variation in trees, fruits and seeds traits of *Lannea microcarpa* in the Sudanian zone of Benin, West Africa: implication for its domestication. *Fruits*

Theses Dissertations

- **Salako K. Valère. 2016.** Population ecology, pattern of uses and conservation of the dioecious palm tree *Borassus aethiopum* Mart. (Arecaceae) in Benin, West Africa. PhD thesis dissertation, Faculty of Sciences and Techniques, University of Abomey-Calavi (FAST/UAC), Abomey-Calavi, Benin. 232 pages.
- **Salako K. Valère. 2012.** Relative performance of non-metric multidimensional scaling in vegetation studies: application to the Lama Forest Reserve (Benin). Master thesis dissertation. Faculty of Agronomic Sciences, University of Abomey-Calavi (FSA/UAC), Abomey-Calavi, Benin, 37 pages.
- **Salako K. Valère. 2011.** Efficiency of shapes, sizes and directions of inventoried plots in the structural analysis of the vegetation in dense forest: case study of the lama forest reserve (Southern Benin). Agronomist Engineer Degree dissertation. Faculty of Agronomic Sciences, University of Abomey-Calavi (FSA/UAC), Abomey-Calavi, Benin, 72 pages.

PRESENTATIONS AT INTERNATIONAL CONFERENCES & WORKSHOPS

- 2016.** – Humboldt Kolleg – Utilizing and conserving natural resources under climate change in Africa, Ouidah, Republic of Benin, 5-7 December 2016. Oral communication
- Week of science and technology of the University of Abomey-Calavi, 21 - 25 March 2016, Cotonou, Benin. Oral communication.
- 2015.** – 27th International Congress for Conservation Biology and 4th European Congress for

- Conservation Biology, 2 – 6 August 2015. Montpellier, France. Poster presentation.
- 2nd Tropical Biology Association Alumni Group (TAAG) conference, 9-12 June 2015. Accra, Ghana. Oral communication.

- 2014.**
- 16^{ème} édition des Journées Scientifiques Internationales de Lomé, 20-25 Octobre 2014. Lomé, Togo. Oral communication.
 - 24th IUFRO World Congress, 5-11 October 2014, Salt Lake City, USA. *International Forestry Review* 16(5): 66. Oral communication.
 - 1st Conference of the national network of researchers on neglected and underutilized species (NUS). 27-28th February 2014. University of Abomey-Calavi, Abomey-Calavi, Benin. Oral communication.
- 2013.**
- 14th Students Conference on Conservation Science (SCCS-2013), University of Cambridge, 19-21st March 2013. Cambridge, UK. Oral communication.
 - 2nd Conference on Statistics Applied to Development in Africa (SADA), ISBA, University of Abomey-Calavi, 5-8th March 2013, Cotonou, Benin. Poster and oral communications.
- 2012.**
- 15^{ème} Edition des Journées Scientifiques Internationales de Lomé, Université de Lomé, 22-26th October 2012, Lomé, Togo. Oral communication.

TRAININGS AND WORKSHOPS

- 2016.**
- **July.** Three weeks training on capacity building for researchers and lecturers, MooSciTic, IRD-CIRAD
 - **May.** One week training in population modelling with Prof. Carsten DORMAN and Dr. Gita from the Freiburg University, Université d'Agriculture de Kétou, Kétou (Bénin).
- 2015.**
- **November-December.** Field training in Tropical Conservation, Tropical Biology Association (TBA), Kirindy forest (Madagascar).
 - **August.** Training on “When ANOVAs are not enough: new and advanced methods to analyse your data with R”. Montpellier (France).
 - **June.** Training on scientific writing and publication: “Communicating findings of biodiversity research in Africa: where to publish and what to consider” – Elsevier, Accra (Ghana).
- 2013.**
- **March.** Training on “Introduction to Statistical Analysis with R” and “Writing scientific paper”. Conservation Science Group, University of Cambridge, Cambridge, UK.

VISITED COUNTRIES

Niger — Ghana — Gambia — Togo — Kenya — Madagascar — France — United states of America — United Kingdom

AFFILIATIONS / MEMBERSHIPS

- Society for Economic Botany (SEB): Since 2013
- Global Youth Biodiversity Network (GYBN): Since 2014
- Society for Conservation Biology (SCB): Since 2014
- African Forest Forum (AFF): Since 2015
- Tropical Biology Association (TBA) Alumni: Since 2015

MANUSCRIPT REVIEW FOR JOURNALS

- Ethnobotany research and applications (2 manuscripts, 2015)
- Journal of Rural Studies (1 manuscript, 2015)

COMPUTER SKILLS

- Statistical Software: R, SAS, Matlab and Minitab
- Mapping software: ArcGIS and Quantum-GIS
- Software packages (Microsoft Word, Excel, PowerPoint and Access)

OTHERS

- Driving license B

REFEREES

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2. Prof. Achille ASSOGBADJO, assogbadjo@gmail.com
University of Abomey-Calavi, Laboratoire d'Ecologie Appliquée, 05 BP 1752, Cotonou (Bénin),
Cotonou, Republic of Benin
3. Prof. Dr. Charlie SHACKLETON, c.shackleton@ru.ac.za
Environmental Science and NRF/DST Chair in Interdisciplinary Science in Land & Natural
Resource Use for Sustainable Livelihoods
Rhodes University, Department of Environmental Science, South Africa