

## *Biography / Curriculum Vitae*

**Dr. MSc.** Akotchayé Sylvestre BADOU

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**X User Name:** <https://x.com/AkotchayeB77678>

**Nationality :** Beninese

### **I. University**

- **2022**, Ph.D. in Agronomic Sciences and Water, Biodiversity Monitoring and Conservation, Specialty in Mycology, Doctoral School of Agronomic Sciences and Water (EDSAE), University of Parakou (UP), Republic of Benin. Graduated with highest honors, with Jury Congratulations.
- **2016**, Masters in Agronomy, Major in Natural Resources Management, Faculty of Agronomy (FA), University of Parakou (UP), Republic of Benin. Graduated with honors.
- **2013**, Bachelors in Agronomy, Major in Natural Resources Management, Faculty of Agronomy, University of Parakou (UP), Republic of Benin. Graduated with honors.

### **II. Secondary and Primary Education Degrees**

- **2009**, Baccalaureate Series D, Zongo II General Education High School, Parakou, Republic of Benin.
- **2005**, First Cycle Study Certificate, Glazoué General Education High School, Republic of Benin.
- **2001**, Primary Studies Certificate, Sokponta-Gomé Primary School, Glazoué, Republic of Benin.

### **III. Published Articles**

#### **A. Impact-Factor Scientific Articles**

- Teteli, S. C., **Badou, A. S.**, Dramani, R., De Kesel, A., Sambieni, K. R., Diansambu, M. I., Kouton, B. N., Yorou, S. N. (2024). Spatial analysis vis a vis local perception of anthropogenic pressures on natural habitats of ectomycorrhizal fungi in Wari–Maro Forest Reserve in Benin. *Asian Journal of Mycology*, 7(2),51–67, Doi 10.5943/ajom/7/2/5

- Boukary, A. A., Tchan, K. I., Houdanon, R. D., Olou, A. B., **Badou, A. S.**, Yahouedehou, G., Hegbe, A. D. M., Yorou, N. S. (2024). Microclimate and the Spatio-temporal dynamics of natural production of two ectomycorrhizal fungi from the Guineo-Sudanian ecozone in Benin. *Global Ecology and Conservation*, e03238.
- **Badou, A. S.**, Furneaux, B., De Kesel, A., Kalsoom Khan, F., Houdanon, R. D., Ryberg, M., Yorou, N. S. (2022). *Paxilloboletus* gen. nov., a new genus of lamellate bolete from tropical Africa. *Mycological Progress*, 21, 243–256. <https://doi.org/10.1007/s11557-021-01756-y>
- **Badou, A. S.**, Houdanon, R. D., Tchan, K. I., Olou, B. A., Yorou, N. S. (2021). Effects of microclimate on species richness and biomass of boletes in a forest in Northern Benin. *African Journal of Ecology*, 00, 1–10. <https://doi.org/10.1111/aje.12948>
- Dramani, R., Hegbe, A. D. M., Tabé, A., **Badou, A. S.**, Furneaux, B., Ryberg, M., Yorou, N. S. (2020). How are basidiospore size measurements affected by drying? *Current Research in Environmental and Applied Mycology (Journal of Fungal Biology)*, 10(1), 63–70, Doi 10.5943/cream/10/1/7.
- Houdanon, R. D., Tchan, I. K., Laourou, G. A., Codjia, E. I., **Badou, A. S.**, Aignon, L. H., Boni, S., Soulemane Yorou, N. (2019). Spatial structure of ectomycorrhizal trees in wooded savannas of the Guinea-Sudan ecozone in West Africa. *Journal of Tropical Forest Science*, JTFS 31 (1).
- **Badou, A. S.**, De Kesel, A., Raspé, O., Ryberg, M. K., Guelly, A. K., Yorou, N. S. (2018). Two new African members of *Pulveroboletus ravenelii* (Boletaceae). *MycKeys*, 43, 115-130. <https://doi.org/10.3897/mycokeys.43.30776>
- Fadeyi, O. G., **Badou, A. S.**, Aignon, H. L., Codjia, J. E. I., Moutouama, J. K., Yorou, N. S. (2017). Etudes ethnomycologiques et identification des champignons sauvages comestibles les plus consommés dans la région des Monts-Kouffé au Bénin (Afrique de l'Ouest). *Agronomie Africaine*, 29 (1), 93-109.

#### IV. Scientific Presentations

- **Badou, A. S.**, De Kesel, A., Raspé, O., Ryberg, M. K., Guelly, A. K., Yorou, N. S. (2019). Two new African members of *Pulveroboletus ravenelii* (Boletaceae). In Yorou, N. S. & Piepenbring, M. (2019), Book of Abstracts - First International Symposium on African Tropical Mycology (FISTAM). September 9–13, 2019, Parakou, Benin. Parakou University Annals, n°11577, 978-99982-0-141-5.

- Tchan, I. K., **Badou, A. S.**, Houdanon, R. D., Yorou, N. S., Furneaux, B., Ryberg, M. (2017). Temporal variation in diversity and abundance of ectomycorrhizal fungi influenced by microclimatic factors in the Ouémé Supérieur Forest Reserve in Northern Benin. *2nd International Symposium of Kara University, Togo*, September 11–15, 2017.
- **Badou, A. S.**, Houdanon, R., Yorou, N. S., Furneaux, B., Ryberg, M. (2017). "Intra-seasonal variation in species richness and abundance of ectomycorrhizal fungi influenced by microclimate in the Ouémé Supérieur Forest Reserve in Northern Benin." In Musili, P., Mwachala, G. (Eds.), *Systematics, Biogeography, and Conservation of African Plants and Fungi, 21st AETFAT Congress*, Nairobi, Kenya, May 15–19, 2017, ISBN: 9966-955-22-4.
- Furneaux, B., Yorou, N. S., Houdanon, R., Aignou, L. H., **Badou, A. S.**, Laourou, G., Ryberg, M. (2016). Natural production of ECM fungi in Sudanian woodland. *Conference Poster, Annual Mycological Society of America Meeting*. August 7-11, 2016, Berkeley, California, USA.

#### V. Awarded and Executed Projects

- **British Ecological Society Outreach 2023 Grant** - Title: "Capacity building for local populations for sustainable in situ conservation of natural microhabitats (termite mounds) of *Termitomyces* species in the Wari-Marou Forest (Benin)." OR23\1348.
- **First Booster Rufford Grant 2022** - Project Title: "Biodiversity assessment of wild edible fungi and farmer training: effective methods for in situ conservation in the Wari-Marou Forest." Application ID : 36954-B.
- **IDEA WILD Grant No. 501c (3) 2021** - Title: "Fungal diversity distribution model based on ethnomycological knowledge of local communities in the Wari-Marou Forest, Benin."
- **MyTIPS Project CEBioS Program 2020** - Title: "Awareness and information sharing on conservation and sustainable management of natural habitats for edible fungi in Northern Benin." Funded by CEBioS, Royal Belgian Institute of Natural Sciences (Belgium).
- **Second Rufford Small Grant 2019**. Project Title: Conservation of Natural Habitats through the Establishment of an Edible Mushroom Sector and the Intensification of Reforestation in the Wari-Marou Forest. Application ID: 29840-2
- **First Rufford Small Grant 2018**. Project Title: Participatory Conservation of Natural Mushroom Habitats in the Wari-Marou Forest Reserve, Northern Benin. Application ID : 26916-1.

## VI. Professional Experience

- **2024**, Summer Training Organizer: Led a summer training program on the use of miniaturized molecular equipment, including Bento Lab and Minion sequencer, in the forest reserves of Wari-Maró and Ouémé Supérieur, Benin (July 3-20, 2024). Conducted on-site practical field tests, collecting roots and fruiting bodies for DNA extraction on-site. The Bento Lab, equipped with a thermocycler, a centrifuge (13,000 rpm), and gel electrophoresis, was used to identify gaps in fruiting body-based surveys and to assess climate change impacts on soil fungal composition. Funded by VLIR (Belgium).
- **2024**, Scientific visitor at Ghent University, Faculty of Sciences, Department of Biology, Mycology Research Group, for capacity building on the use of the Bento Lab, a portable mini-PCR device for DNA extraction, amplification, and sequencing (MinION Nanopore) under real field conditions in the forests of Ghent, Belgium, as part of the project “*MYCOBLITZ IN BENIN: A LAB IN A BACKPACK*” (Project Code: 31281 - Forestry education/training), funded by VLIR-UOS (Belgium).
- **2024**, Participant at the *Symposium of Young Mycologists from Tropical Africa (SYMTA)*, held from January 25 to 27, 2024. Funded by JRS BIODIVERSITY FOUNDATION, International Association for Plant Taxonomy (IAPT), SOCIETY FOR THE PROTECTION OF UNDERGROUND NETWORKS (SPUN), The Systematics Association (SA), IDEA WILD, and MANAGING INFECTIONS PROMOTING SCIENCE (ESCMID).
- **2023**, Postdoctoral Researcher in Biodiversity Monitoring and Conservation, Specialization: Mycology, at the Laboratory of Mycology and Plant-Soil Fungus Interactions, University of Parakou.
- **2023**, Awareness Raising for Local Populations (farmers and woodcutters): Conducted discussion groups using posters and short 15-minute videos on the adverse effects of fragmenting the natural microhabitats of termites and *Termitomyces* species in the Wari-Maró region. Funded by the British Ecological Society.
- **2023**, Educating Local Populations: Provided information to local communities on the role of *Termitomyces* species in climate resilience, ecological habitat restoration, and wealth creation across all villages bordering the Wari-Maró Forest Reserve. Funded by the British Ecological Society.

- **2023**, Boosting Self-Confidence in Local Populations: Aimed at more effective and inclusive integration of local communities in research for sustainable in-situ conservation of *Termitomyces* species. Funded by the British Ecological Society.
- **2023**, Educating on Conservation Laws: Educated local populations on available regulations and laws regarding sustainable management of wild mushrooms and natural habitats in Benin. Funded by the British Ecological Society.
- **2023**, Three-Day Workshop Participation (February 20-22, 2023): Participated at the University of Parakou (Benin) in training on best practices for fungal specimens, preparation (“from field to fungarium”), the value of scientific archival biological collections, the value of a DNA barcode bank for fungi, and practical training in fungal species identification using microscopy and relevant literature, fungal tissue DNA extraction, PCR amplification of the DNA barcode marker, and collection metadata digitization in iNaturalist. Funded by the International Association for Plant Taxonomy (IAPT).
- **2022**, Integrative Taxonomy Training Course Participation: Participated in a training course on integrative taxonomy at the University of Parakou (Benin) from September 12-23, 2022, organized by the Tropical Mycology Research Unit and Plant-Soil Interaction (UR-MyTIPS) and Meise Botanic Garden (Belgium) with financial support from the CEBioS Program, Royal Belgian Institute of Natural Sciences (Belgium).
- **2022**, Workshop on DNA Barcoding in Biodiversity Management: Participated in a workshop on DNA barcoding in biodiversity management from April 21-30, 2022, organized by the Royal Belgian Institute of Natural Sciences (Belgium) and LaRAEAq Laboratory with financial support from the CEBioS Program, Royal Belgian Institute of Natural Sciences (Belgium).
- **2022**, Production of 7,000 Seedlings for Reforestation: Produced 1,000 *Isobertia doka* seedlings, 1,000 *Isobertia tomentosa* seedlings, 3,000 *Azelia africana* seedlings, and 2,000 *Pterocarpus erinaceus* seedlings, which were planted in degraded natural habitats of the Wari-Marou Forest Reserve.
- **2022**, Training Farmers: Trained farmers in various nursery techniques for tree partners (*Isobertia doka* and *Isobertia tomentosa*) with wild mushrooms in the Wari-Marou region.
- **2021**, Workshop Participation on Sustainable Management and Data Storage on the GBIF Platform: Participated from September 1-10, 2021, at the University of Parakou, Benin.

- **2020**, Principal Organizer of Mini-Symposium: Titled “Sustainable Exploitation and Conservation of Edible Mushrooms and Their Habitats in Benin: Achievements and Challenges” funded by the CEBioS Program, Royal Belgian Institute of Natural Sciences (Belgium). R.3.4-29 / 2020/065.
- **2020**, Public Awareness on Best Practices: Conducted awareness-raising activities on sustainable management and conservation of wild mushroom habitats in the Wari-Maró Forest Reserve, Benin.
- **2019**, Scientific Visitor in Integrative Taxonomy: Conducted open-access visits to edible mushroom collections at the Royal Belgian Institute of Natural Sciences (RBINS) and Meise Botanic Garden (Belgium) from October 7-30, 2019, under the Global Taxonomic Initiative (GTI) funding of the CEBioS Program.
- **2019**, Data Collection on Ethnomycological Knowledge: Collected data on the disparity of ethnomycological knowledge across sociocultural groups and villages using an innovative local community sensitization method in the Wari-Maró region, Benin.
- **2019**, Training Local Populations in Mushroom Cultivation: Trained local populations in edible mushroom cultivation in the Wari-Maró region.
- **2019**, Reforestation of Ectomycorrhizal Tree Partner Habitats: Reforested natural habitats with *Isobberlinia* spp. and *Afzelia africana* trees in the Wari-Maró region.
- **2018**, Independent Consultant for GIZ-Benin via UR-MyTIPS: In the framework of the project “Sustainable Promotion and Exploitation of Wild Edible Mushrooms with Local Populations in the WAP Complex.” PN 15.2047.7-001.00, Project No. 83293005.
- **2018**, Mycological Training Course Participation: Participated in a two-week mycological training course on professional photography and illustration of macromycetes from May 18-30, 2018, at the University of Parakou (Benin) in collaboration with Meise Botanic Garden with financial support from the CEBioS Program.
- **2018**, West African Mycological Expedition Participation: Participated from June 19 to July 15, 2018, funded by the National Geographic Society, Grant No. CP129R-17.
- **2018**, Habitat Degradation Data Collection : Collected data on habitat degradation (satellite image compilation of fungal habitats) and quantitative data on fresh biomass of certain useful mushroom species.
- **2018**, Establishment of a Local Committee: Created a local committee to monitor new or adapted management practices. The committee comprises selected stakeholders.
- **2018**, Scientific Visitor in Integrative Taxonomy: Conducted open-access visits to edible mushroom collections at the Royal Belgian Institute of Natural Sciences (RBINS) and

Meise Botanic Garden (Belgium) from September 3-30, 2018, under GTI funding of the CEBioS Program.

- **2017**, Scientific Visitor in Integrative Taxonomy: Conducted open-access visits to edible mushroom collections at the Royal Belgian Institute of Natural Sciences (RBINS) and Meise Botanic Garden (Belgium) from November 3 to December 2, 2017, under GTI funding of the CEBioS Program.
- **2017**, Wild Ectomycorrhizal Mushroom Collection: Collected boletes (ectomycorrhizal wild mushrooms, Fungi Basidiomycota) in woodlands and gallery forests in northern Benin over six months (June-October) using transects based on the presence of partner trees such as *Isoberlinia* spp., *Uapaca* spp., *Monotes kerstingii*, *Berlinia grandiflora*, etc.
- **2017**, Statistical Analysis Seminar Participation: Participated in a seminar on statistical analysis using R software from April 3-5, 2017, at the University of Parakou, Benin.
- **2017**, Scientific Writing Techniques Seminar Participation: Conducted by the Royal Belgian Institute of Natural Sciences (Belgium) on November 23, 2017, in Brussels, Belgium.
- **2016**, Ecological Monitoring Study: Collected data on wild edible mushroom production (fresh and dry biomass estimation) in relation to microclimatic, floristic, and soil physicochemical parameters (June-October 2016) in the Ouémé Supérieur Forest Reserve in northern Benin, under a project on natural ectomycorrhizal mushroom production facing climate change funded by the Swedish Scientific Council.
- **2015**, Dendrometry Data Collection: Collected dendrometry data such as density, Diameter at Breast Height (DBH), Total Height, Circumference for ectomycorrhizal tree partners in the Ouémé Supérieur Forest Reserve.
- **2012**, Population Structure Study of *Parkia biglobosa*: Collected quantitative data (density, DBH, Total Height, Circumference) to assess the population structure of *Parkia biglobosa* in the Ouémé Supérieur Forest Reserve in northern Benin.

## VII- Références

- **Prof. Dr. Nourou SOULEMANE YOROU**, Full Professor in Tropical Mycology, CAMES Universities, Faculty of Agronomy, University of Parakou, Benin, 03 BP: 125, Parakou. Phone : +229 94 24 38 66 / +229 62 59 46 76, [yorou2001@yahoo.fr](mailto:yorou2001@yahoo.fr) .
- **Dr. N'golo Abdoulaye KONE**, Associate Professor, CAMES, Nangui Abrogoua University, Abidjan, Côte d'Ivoire, 28 BP 847 Abidjan 28 (Côte d'Ivoire). Phone : (+225) 0707620384 / (+225) 0575673717, [ngolo197804@yahoo.fr](mailto:ngolo197804@yahoo.fr) .

- **Dr. André De Kesel**, Researcher at Meise Botanic Garden, Nieuwelaan 38, Research Department, BE-1860 Meise, Belgium. Phone : +32 (0)2/260.09.38, Fax : +32 (0)2/260.09.45, [andre.dekesel@botanicgardenmeise.be](mailto:andre.dekesel@botanicgardenmeise.be) .
- **Dr. Martin RYBERG**, Researcher, Department of Organismal Biology, Uppsala University, [www.uu.se](http://www.uu.se). Phone: +46 (0)18 471 26 47, Norbyvägen 18D, 75236 Uppsala (Sweden), [martin.ryberg@ebc.uu.se](mailto:martin.ryberg@ebc.uu.se) .
- **MSc. Jean BADOU**, Technical Manager at Koppert West Africa. Phone : +225 07 09 21 03 91 / +225 07 59 50 16 41, [jbadou@koppertwestafrica.com](mailto:jbadou@koppertwestafrica.com) .

I certify in good conscience that the above information accurately reflects my situation, qualifications and experience.

Done in Parakou on 02/01/2024.



**Dr. Sylvestre Akotchayé BADOU**