The Deputy Vice-Chancellor, Academic and Students Affairs

Prof. James H.P. Kahindi, DVC (Academic and Students Affairs)

Prof. James H.P. Kahindi joins Pwani University from the United States International University (USIU) where he served as the Associate DVC (Academic Affairs). He is a Professor of Natural Sciences with extensive Research and Managerial experience in Microbial Biotechnology; in particular Biological Nitrogen Fixation; and Microbial Control of Pests & Vector Insects. In addition he has wide experience in Environmental Impact Assessment and Environmental Audit.

Prof. Kahindi received his doctorate in Microbiology from the University of Sussex, UK in April 1994. The research highlighted the "Efficiency of Nitrogen fixation in *Azotobacter chroococcum*" under a variety of environmental and physiological conditions. He did his Bachelors and Masters degree courses at the Nairobi University. His area of specialty is Environmental Conservation and Biotechnology. Since then he has undertaken various Research activities among them the GEF funded CSM-Below Ground Biodiversity project which was implemented in seven tropical countries namely; Brazil, Cote d' Ivoire, India, Indonesia, Kenya, Mexico and Uganda. He contributed enormously in the development of Bacillus thuringiensis(B*t*)-based biopesticide for adoption by Kenyan Small scale farmers as well as the Search for Stable Biocatalysts from Extremophiles for the utilization of renewable raw materials.

Prof Kahindi has published four book chapters, and over 20 peer reviewed articles and conducted various consultancy works such as the Rehabilitation of the Marula Quarry in Gilgil- Kenya, Environmental Impact Assessment for the installation of an incinerator in Ruai area Nairobi, Initial environment examination report For USAID/Kenya, and the

preparation of the Policy for Regional Development Authorities in Kenya, among others. Currently he is involved in various Environmental Management and Conservation projects.

Prof. Kahindi joins Pwani University at a time when the institution has begun to implement strategies to modify its approach to teaching and learning. His vast experience as an administrator in a private University is set to add value to programmes offered at PU.

1. PUBLICATIONS

(A) Peer-Reviewed Articles in journals:

1. J.M. Jefwa, S. Okoth, P. Wachira, N. Karanja**, J. Kahindi**, S. Njuguini, S. Ichami, J. Mung'atu, P. Okoth and, J. Huising (**2012**) Impact of land use types and farming practices on occurrence of arbuscularmycorrhizal fungi (AMF) Taita-Taveta district in Kenya. *Agriculture, Ecosystems and Environment 157 (2012) 32– 39*
2. George M. Mwenda, Nancy K. Karanja, HamadiBoga, **J.H.P. Kahindi**, A. Muigaia and D. Odee (**2011**) Abundance and Diversity of Legume NodulatingRhizobia in soils of EmbuDistrict, Kenya. *Tropical and Subtropical Agroecosystems, 13 (2011): 1 – 10*
3. Jane A. Otadoh, Sheila A. Okoth, James Ochandaand **James P. Kahindi** (**2011**) Assessment of *Trichoderma*isolates for virulence efficacy on *Fusariumoxysporum F. sp. Phaseoli.Tropical and Subtropical Agroecosystems, 13 (2011): 99 – 107*
4. S. N. Mwangi, N. K. Karanja, H. Boga, **J. H. P. Kahindi**, A. Muigai, D. Odee and G. M. Mwenda (**2011**)Genetic Diversity and Symbiotic Efficiency of Legume Nodulating Bacteria from dfferent Land Use Systems in TaitaTaveta, Kenya*Tropical and Subtropical Agroecosystems, 13 (2011): 109 – 118*
5. Sheila A. Okoth, Roimen H., Mutsotso B., Muya E., **Kahindi J**., Owino, J.O. and Okoth P. (**2007**) Land use systems and Distribution of *Trichoderma* species in Embu Region Kenya. *Trop. And subTrop. agroEcosystems 7:105-122*
6. Wang'ondu V.W., **Kahindi J.H.P.,**Olembo N.K and Ochanda J.O. (**2007**) Screening of local *Bacillus thuringiensis* isolates for toxicity to *Chilopartellus*, *Sesamiacalamistis* and Busseolafusca in Kenya.*J. Trop. Microbiol. Biotecchnol. 3:27-35*
7. **Kahindi J.H.P**., Karanja, N.K., Odee, D. and Mwaura, F.B. (**2004**) The Diversity of Biological Nitrogen Systems in Kenya. *J. Trop. Microbiol. 3:35-26*
8. Karanja, N.K, Mwendwa K.A, Okalebo J.R. and **Kahindi J.H.P**. (**2004**) Effect of phosphate rock fertilization and arbuscularmycorhizae (AM) inoculation on growth and nodulation of agroforestry tree seedlings. *West Afr. J. Appl. Ecol.6:55-64*

9. Wangond'u V., Ochanda J., **Kahindi J.H.P**., and Olembo N. (**2003**) Isolation and partial characterization of *Bacillus thuringiensis* from Kakamega and Machakos Districts, Kenya. *J. Trop. Microbiol. 2:5-12*
10. **Kahindi J.H.P**.; Campbell F.O. and Yates M.G. (**2000**) The Effect of Nutrient limitation on the competition between Hydrogenase negative (Hup-) Nitrogen fixing *Azotobacterchroococcum* containing the vanadium nitrogenase and the Hup+ recombinant in mixed portions. *Afr. J. Sci.& Tech. 1(3): 21-28*
11. Woomer, P.L.; **Kahindi, J.H.P**., and Karanja, N.K. (**1998**) Nitrogen Replenishment in the East African Highlands through Biological Nitrogen Fixation and Legume Inoculation. *Agron. Afr*. *1: 387-413*.
12. **Kahindi, J.H.P**.; Woomer, P.; George, T.; Moreira, F.M.; Karanja, N.K. and Giller, K.E. (**1997**) Agricultural intensification, Soil Biodiversity and Ecosystem Function in the Tropics: The Role of Nitrogen Fixing Bacteria. *Appl. Soil Ecol. 6:55-76*
13. Yates M.G.; Souza, E.M. and **Kahindi, J.H.P**. (**1997**) Oxygen, Hydrogen and Nitrogen Fixation in *Azotobacter. Soil Biol. & Biochem.29:863-869*
14. Hill, S.; Kavanagh, E.; D'Mellor, R.; Poole, R.K.; Munn, **Kahindi, J.H.P.;** J Campbell, F.; and Yates, M.G. (**1994**) Physiology of Nitrogen Fixation Relating to Nitrogen, Oxygen, Hydrogen status in free-living heterotrophs. In N.A. Hegazi, M. Fayez and M. Morib (eds) Nitrogen Fixation with Non-legumes pp. 15 – 24. The American University in Cairo Press.
15. **Kahindi, J.H.P.** (**1994**) Efficiency of Nitrogen fixation in *Azotobacterchroococcum*. Ph.D Thesis, University of Sussex, U.K.
16. **Kahindi, J.H.P.;** Campbell, F.O. & Yates, M.G. (**1993**). Efficiency of Nitrogen Fixation by the molybdenum and vanadium nitrogenases of *Azotobacterchroococcum*. In R. Palacios, J. Moira and W.E. Newton (eds) New Horizons in Nitrogen Fixation pp. 473. Kluwer Academic Publishers, Dordrecht, Boston, London.
17. Mukiama, T.K. &**Kahindi, J.H.P.** (**1989**) Potential of *Bacillus thiringiensis var. israelensis* for Mosquito Malaria Control in Kenya. *Israel J. Entomol. 23: 69 – 79.*
18. **Kahindi, J.H.P.** (**1989**) Microbiol Control of Pests and Vector Insects. *Science News Vol. 1 (3):3-6,* University of Nairobi.
19. **Kahindi, J.H.P.** (**1987**) Evaluation of the Potential of *Bacillus thuringiensis* var. *israelensis* de Barjac (*Bti*) as a microbial control agent of target mosquito species in Kenya. MSc. Thesis, University of Nairobi.
20. **Kahindi, J.H.P.** (**1987**) The efficiency of *Bacillus thuringiensisvar. israelensis*de Barjac as a larvicide of mosquito species in Kenya. *MIRCEN Newsletter vol. 10(2): 3-4.*

(B) Book Chapters:

1. **Kahindi J.H.P.** and Karanja N.K. (**2006-2009**) Biotechnology and Genetic Engineering Technology Assessment: Essentials of Biological Nitrogen Fixation Technology. In "*Encyclopedia of Life Support Systems (EOLSS)* -Biotechnology: Knowledge in Depth" Ed. Horst W. Doelle. (www.eolss.net).

2. Karanja N.Kand **Kahindi J.H.P.** (**2004-2007**) Biotechnology and Genetic Engineering Technology Assessment: In "*Encyclopedia of Life Support Systems (EOLSS)* -Biotechnology: Knowledge in Depth" Ed. Horst W. Doelle. (www.eolss.net).
3. Mugo, J.K, **Kahindi, J.H.P**., Odee D., Makatiani E. and Maureen S. (**2002**) Biological Nitrogen Fixation of *Acacia drepanolobium*. In: Challenges and Imperatives for Biological Nitrogen Fixation Research and Application in Africa for the 21st Century (Karanja, N.Kand **Kahindi** J.H.P) Eds. Pp. 131 – 138. John Phillips Africa Ltd. ISBN 9966-879-41-2
4. Alabaster G., **Kahindi J.H.P.,**Karanja N.K. and Kwach H.O. (2001) Urban Waste Management: proceedings of a Wrkshop on "Enhancement of Productivity and sustainability of Urban/Peri-Urban Agriculture (UPA) through efficient management of Urban Waste. UN-HABITAT.

   ISBN No. 92-1-131629-4

(C) Scientific Field Documents:

1. Kimenju, J. W., Karanja, N.K., Okoth S.A., Wachira P.M., **Kahindi J.H.P**., Jefwa J.M., Nyamasyo G.,Muya E., Mutsotso B., Gikungu M., Roimen H. and Kibberenge M. (**2010**) Effect of Land use Intensification and Soil Fertility Management Practices on Soil Biodiversity in Embu and Taita, Kenya.CSM-BGBD project Kenya Farmer Report 1001
2. Karanja, Nancy and **Kahindi, J.H.P. (2006**) Conservation and Sustainable Management of Below-ground Biodiversity in Kenya: A Farmer Report on the Benchmark characteristics. A project executed by TSBF-CIAT with co-financing from the Global Environment Facility (GEF) and implementation support from the United Nations Environment Programme (UNEP)
3. Abaidoo R.C., Carsky R.J., Danso S.K.A., Fening J., Giller K.E., Gueye M., **Kahindi J.H.P.**, Mpepereki S., Osunde A., Sanginga N., Schulz B., Vanlauwe B. and Woomer P.L. (**2001**) African Association for Biological Nitrogen Fixation (AABNF) mid-term Strategy for Collaborative BNF Research and it technical applications.

(D) Publications from Conferences & Workshops:

1. **James H.P. Kahindi** and Esther W. Nyaga (2011) The Hydropolitics of Lake Turkana: Water, Food Security and Conflicts around Lake Turkana.A paper presented during the Conference on Environment and Conflict: Challenges Facing Kenya at the Travellers Beach Hotel, Mombasa, 4th -7th Dec 2011

2. **Kahindi, J.H.P.;** Karanja, N.; Mibey, R.K.; and Gikungu, M (**2004**) Conservation and Sustainable Management of Below Ground Biodiversity in Kenya. A poster presented at Launch of the BGBD project in Kenya. Nairobi, 6th September 2004.
3. Odee, D.W., Makatiani, E., Karanja N. and **Kahindi J**. (**2005**) Abundance and growth Characteristics of legume-nodulating bacteria in Embu and Taita benchmark sites of Kenya. In Inventory of below-ground biodiversity in eleven benchmark areas within seven tropical countries: Report of the Annual meeting of the TSBF-CIAT Below Ground Biodiversity project pp.77

4. Abaidoo R.C., Carsky R.J., Danso S.K.A., Fening J., Giller K.E., Gueye M., **Kahindi J.H.P.**, Mpepereki S., Osunde A., Sanginga N., Schulz B., Vanlauwe B. and Woomer P.L. (**2002**) Collaborative BNF Research Initiative on Biological Nitrogen Fixation for African Agriculture. In Enhancing BNF Research and Application for Food Security and Poverty Alleviation in Smaa Holder African Farming: Proceedings of the 10th AABNF Congress, Accra, Ghana.
5. **Kahindi, J.H.P.** (**2000**) Soil Microbiota beneficial to Agriculture. A paper presented at the National Workshop on Agricultural biodiversity in preparation for the Fifth Conference of Parties (COP V) to the Convention on Biological Diversity (CBD), Pan Afric Hotel, Nairobi, 27-28th April, 2000.

3**. Kahindi J.H.P.** (**2000**) Abuse and Misabuse of Biotechnology: Kenya Which Way? A paper presented at the 1st Brown Bag Lecture Series Meeting held at USIU-A on 2nd February, 2000.

4**. Kahindi J.H.P**. (**2000**) Alien Invasive Species that threaten Ecosystems and Habitats: Mitigation of Impacts. A Paper presented at the Kenya Government Biodiversity Conference of Parties 5 (COP 5) Preparation Meeting held at Mbagathi, April 27-28th, 2000.

5. **Kahindi, J.H.P.;** Campbell F.O., & Yates, M.G. (**1998**) The Efficiency of Nitrogen Fixation in Mixed Populations of Hup+ and Hup – mutants of *Azotobacterchroococcum. A* paper submitted to the Regional Workshop on Biotechnology, Nairobi 16 – 18th September, 1998

6. Karanja, N.K.; Mwala, A.K.; **Kahindi J.P**; and Woomer, P.L. (**1998**). The East African Rhizobium MIRCEN: A review of the Progress in research, training and information dissemination. (ed. F.D. Dakora) pp 101-102. Poster presented at the 8th Congress of the African Association for Biological Nitrogen Fixation (AABNF), 23-27 November, 1998.

7**. Kahindi, J.H.P.;**&Mukiama, T.K. (**1996**) Biotechnology and Biodiversity Conservation in Kenya. In P.M. Ndonye**,** J.H.P. Kahindi**,** G.H.N. Nyamasyo, J.K. Abuya and N. ArapChumo (eds). Proceedings of the Kenya Workshop on Biodiversity pp. 45-53. UNO/RAF/006/GEF Field Document No. 19.

8. Eady, R.R.; Eldridge, M.E.; Dilworth, M.J.; **Kahindi, J.H.P**.; Campbell, F.O. and Yates, M.G. (**1992**) The efficiency of Vanadium Nitrogenase. In "The Annual Report of the Agriculture and Food Research Council" pp. 47 – 52.Institute of Plant Science Research, Cambridge Laboratory, John Innes Institute, Sainsbury Laboratory and the Nitrogen Fixation Laboratory, UK.

(G) Publications from Training Courses:

1) Ochanda J.O., **Kahindi J.H.P.**, Anyango B, Gudu S., Muraya J., Amugune N., Kinyanjui P.W., Osanya A., Mukiama T.K. (1996) A laboratory manual for Molecular Biology Techniques Vol. I (Ed. **J.H.P. Kahindi**) University of Nairobi.

2). Ochanda J.O., **Kahindi J.H.P.**, Anyango B., Gudu S., Muraya J., Amugune N., Kinyanjui P.W., Osanya A., Mukiama T.K. (1996) A laboratory manual for Molecular Biology Techniques Vol. II (Ed. **J.H.P. Kahindi**) University of Nairobi.