



PhD (2000), MSc.Int. Management (2013), MSc. Zoology (1996), PGCL (1992), PGDE (1991), BSc. (1991)

Position: Associate Professor, Marine and Maritime Education

Date of Birth: 30th November, 1967 Iganga, Uganda

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A. QUALIFICATION, PROFESSIONAL MILESTONES AND PROFILE

I am currently an Associate Professor with Maritime Institute of Busitema University, Uganda at Namasagali Campus. I am also currently serving as the Chairperson of the Public Agricultural Research Institute (PARI) Advisory Committee (PAC) for the National Fisheries Resources Research Institute (NaFIRRI) under the National Agricultural Research Organization (NARO), where I have been a member since 2009. I am also a Managing Partner for a not-for-profit consortium of experts in Research and Management of consultancy projects in natural resources management with specialization in aquatic resources and environmental management. This consortium is known as "Eccelenzia Consorzio Research and Management (ECRAM)" based in Kampala, Uganda. I have previously served as Head of Department of Fisheries from 2008 to 2017, and as Head of Aquaculture from 2001 – 2008, in the Ministry of Agriculture, Animal Industry and Fisheries in Uganda. I started my scientific carrier as a Fisheries Biologist with Uganda Freshwater Fisheries Research Organization (UFFRO, then FIRI now NaFIRRI) of the Government of Uganda from 1991 to 1993.

I was then admitted to Ohio State University as a Graduate Research Associate for my graduate studies from 1993 to year 2000, from which I attained a Master of Science in Zoology and a Doctorate degree in Evolution, Ecology and Organismal Biology with specialization in fisheries and aquaculture bio-sciences. I also successfully completed coursework for a Master of Education (Natural Sciences) of University of South Africa from 2000 to 2003; and successfully completed a Postgraduate Diploma in Science Education of Makerere University from 1990 to 1991. Recently from 2010 to 2013 I completed an equivalent of an MBA in International Management (MSc of International Management) of the University of Liverpool, UK. I am currently about to completed by second PhD in Management with Atlanta International University, and as part of retooling to develop capacity for marine and maritime education I also pursuing a Master of Science in Maritime Studies with University of Portsmouth.

I am a dedicated, organized and methodical individual. I am an excellent team worker and am keen and very willing learner striving always to improve my knowledge and develop new skills. I am reliable and dependable and I always look out for new and challenging responsibilities. I have an active and dynamic approach to work and getting things done. I am determined and decisive. I identify and develop opportunities. During my career I have managed and I have been involved with several national, regional and international organizations and projects including the Directorate of Fisheries, the Committee for fisheries management in Lake Victoria Fisheries Organization; Regional Aquaculture Policy Working Group; several national and international development and scientific projects; and worked in teams with local, regional and international universities, research and teaching institutions. These have involved planning, management, development, scientific research, and implementation of conservation of aquatic resources in general and specifically fisheries. I have been involved with training, organizing and facilitating capacity building workshops, policy and legal instrument reviews and updates, and provision of technical services as well as supply and distribution of implements and inputs for fisheries and aquaculture production. I also have been deeply and regularly involved with

international management of complex multinational projects related to natural resources management and biodiversity, and how these are impacted by agricultural activities. Currently, I am Director of Busitema University Maritime Institute (BUMI), charged with developing the marine and maritime education and training programmes and related curricular, as well as overseeing the planning and development of the infrastructure for research, teaching and outreach of BUMI.

I am also a very active research and management expert, and I have been directly involved with management of research institutions both at scientific level and policy levels where I have acquired expertise through training and field experience in Ecosystem Approach to Aquaculture and Fisheries planning, Risk Management in development and management of fisheries. I have also attained skills through training in the following key areas: international negotiation; organization development and learning; strategic forward-planning; management of strategic operations, appraising and weighting of complex environmental projects; working with tight financial limits imposed by ambitious budgets that were designed with my involvement to accomplish complex and demanding projects; administration and leading of complex national and international teams; team building both physical and virtual teams; and delivery under tight schedules imposed by the complex nature and rigid national and international operating frameworks that have to take in consideration the divergent temporal, cultural, spatial, and experiential aspects of the environmental issues and projects.

I am well published especially in regards to utilization, conservation, management and development of aquatic resources. In course of my training and work I have had opportunity to travel widely and regularly and I find myself deeply interested in cultural diversity, the plight of the poor, and how these two issues poverty and cultural diversity relate to and impact issues of aquatic environment management. I also been chanced that I have schooled in Africa, Europe and North America Universities with very good grasp of the English language, and fair reading of French, as well as excellent command of a number of local languages locally here in East Africa.

B. RELEVANT QUALIFICATIONS

- 1) MSc. International Management of University of Liverpool, 2013.
- 2) PhD (2000) in Evolution, Ecology and Organismal Biology of Ohio State University, Columbus Ohio, 2000, with specialization in Fisheries and Aquaculture Biosciences
- 3) MSc of Zoology of Ohio State University, Columbus Ohio, 1996, with specialization in fisheries ecology and population genetics.
- 4) Postgraduate Certificate in Limnology and Fisheries Ecology and Limnology, Mondsee Institute of Limnology, Austrian Academy of Sciences, Vienna Austria.
- 5) PGDE in Science (Biology and Chemistry) of Makerere University, 1992.
- 6) BSc. Zoology (hydrobiology) and Botany (Genetics) of Makerere University, Kampala Uganda, 1991.

C. RELEVANT EXPERIENCE

- Eight (08) years teaching experience in Ohio State University as Graduate Teaching and Research Assistant, 1993 to 2000
- 2) Two (02) years as a lecturer of Zoology with Makerere University Kampala, 2000 to 2001
- 3) 72 scientific publications with 29 as peer reviewed articles
- 4) Supervised a total of 11 graduate students including 4 doctorate students and 7 master students.
- 5) In terms of community contribution, I am a found and director a community school in Mayuge District and also a founder and chairperson of NGO based in Mayuge District; a Chairperson of Board of Directors for a community-based school in St. Mulumba Village of Mayuge Town Council and Mayuge District.

D. EDUCATION BACKGROUND

- 1) MSc. International Management Jan 2010 to Dec 2013 University of Liverpool, UK
 - With specialization in public projects/Investments appraisal
- 2) PhD. Evolution, Ecology & Organismal Biology Oct 1997 to Mar 2000 Ohio State Uni. Columbus, Ohio.
 - With specialization in Fisheries Biology and Ecological Genetics of Lake Victoria Region Fishes
- 3) MSc. Zoology Oct 1993 to May 1996 Ohio State University Columbus, Ohio
 - With specialization in Population and Ecological Genetics of Tilapiine Fishes of Lake Victoria Region

- 4) **BSc.** Botany and Zoology 1987 to 1990 Makerere University Kampala (Uganda)
 - With major options of Genetics in Botany and Hydrobiology in Zoology

Additional education qualifications

- 1) M Sc. Education (Coursework) 2000/2003 University of South Africa Pretoria, South Africa
 - 5) Natural Sciences & Environmental Education
- 2) Certificate in Limnology 1991/1992 Mondsee Institute of Limnology Austrian Academy of Sciences
 - 6) Limnology, with specialization in Water quality studies and Fisheries Ecology
- 3) Postgraduate Diploma in Education 1990/1991 Makerere University Kampala (Uganda)
 - 7) Science Education with specialization in Biology Education

E. SPECIALIZED TRAINING

- 1) Ecosystem Approach to Aquaculture and Fisheries Planning, UN FAO
- 2) Risk Management and Aquatic Biosecurity by World Fish Centre, CGAIR
- 3) Aquatic Biosecurity and Risk Management by UN FAO
- 4) Specialized Africa Regional Fisheries Management, China Government
- 5) Deregulation and Regulatory Impact Assessment by World Bank
- 6) Agriculture Science Technology and Innovation (ASTI) Systems by CIAT
- 7) Risk Assessment and Management of Genetically Modified Aquatic Organisms by UN FAO
- 8) Public Procurement and Disposal of Assets by the Uganda Public Procurement and Disposal of Assets Authority
- 9) Agriculture Advisory Services Extension Management by Ministry of Agriculture, Animal Industry and Fisheries of Government of Uganda

F. SKILLS AND EXPERTISE

- Scientific and developmental research work and management
- Social research methods and approaches
- Supervision of academic research
- Pedagogy
- Training of farmers, trainers, subject matter specialists, extension workers
- Facilitation of technical and sensitization workshops and community meetings
- Development of training concepts and training report writing
- Training needs assessment and formulation of training modules.

G. WORK RECORD

I am currently working as the Director of Busitema University Maritime Institute (BUMI) based at Namasagali Campus in Kamuli District where I am a member of Busitema University Management and Member of Busitema University Admissions Board. I am also a Managing Partner of a research and management consortium known as 'Eccelenzia Consorzio Research and Management' (ECRAM). Prior to this I served as Head of Department for Fisheries and Head of Aquaculture in the Ministry of Agriculture, Animal Industry and Fisheries from 2008 to 2017 and 2001 to 2008 respectively.

I began my working carrier as a **Research Officer** (**Fish Biologist**) with Uganda Freshwater and Fisheries Research Organization (UFFRO) the then government agency responsible for monitoring fisheries resources.

In 1993 I left for graduate studies at Ohio State University of Columbus Ohio until 1996 when I attained an MSc. Zoology. I continued with doctoral studies from 1997 to 2000.

While at Ohio State University I worked as a Graduate Teaching Associate for **eight** years (1993 - 2000) teaching undergraduate students in Biology and Fisheries Ecology courses.

I also served as a Graduate Research Associate under Professor Paul Fuerst working on the conservation genetics of

cichlid fishes of Lake Victoria Region, East Africa.

As part of the Lake Victoria cichlids fishes conservation programme I was also hired by Uganda National Fisheries Resources Research Institute as a **Biodiversity Specialist** and assigned the role of identifying and mapping of critical fisheries biodiversity, ecological and economic sites in Ugandan waters of Lake Victoria from **1997 to 2000**.

In year 2000, I returned to Uganda where I joined Makerere University as **Lecturer with Zoology Department**. Later in 2001 I joined civil service as the **Head of Aquaculture Management in Ministry of Agriculture, Animal Industry and Fisheries** (MAAIF) based in Entebbe.

In 2008 I became the **Commissioner for Fisheries** in **MAAIF until 2017** As Commissioner I served as the legally mandated Chief Fisheries Officer and was responsible for the following functions:

- 1. Head of Department in Ministry of Agriculture, Animal Industry and Fisheries:
 - 8) Administration of 257 fisheries and aquaculture managers charged with guiding fisheries and aquaculture related activities in Uganda both at Central and local government levels.
 - 9) Implementation of the Fish Act (2000) that regulates and coordinates all fisheries and aquaculture activities in Uganda
 - 10) Central Competent Authority for fish, fishery and aquaculture production and products
 - 11) Coordination of Uganda's technical fisheries and aquaculture issues and concerns at regional and international levels
- 2. Chairperson, Executive Committee Lake Victoria Fisheries Organization
 - 12) Promoting and overseeing of the implementation of regionally agreed fisheries management measures in Lake Victoria Basin
 - 13) Coordinating of technical issues agreed to regionally between Republics of Tanzania, Kenya and Uganda that share the fisheries of Lake Victoria in regard to fisheries management and development
- 3. FAO Focal point for Aquatic Biosecurity and Fish Health Management' for Uganda under the FAO Aquatic Biosecurity Programme for Southern Africa
 - Responsible for monitoring and reporting on aquatic Biosecurity issues in Uganda
 - Responsible for management and coordinating of Fish Health Management Services of international concern in Uganda
- 4. Founding Member: 'Aquaculture Network for Africa (ANAF)' under the Committee for Inland Fisheries of Africa (CIFAA), the FAO
 - Responsible for coordinating aquaculture development projects in the Africa Regional that are agreed to by members of ANAF
 - Responsible for coordinating and management of information exchange between member countries of the ANAF
- 5. Board Director Management Committee for the National Fisheries Research Institute, a Public Agriculture Research Institute (PARI) under the National Agriculture Research Council
 - Responsible for policy formulation and guidance to the PARI responsible for fisheries and aquaculture research
 - Responsible for supervision of the management of the PARI responsible for fisheries and aquaculture research
- 6. Member of East Africa Regional Aquaculture Working Group for the Lake Victoria Fisheries Organization (LVFO)
 - Responsible for initiation and coordination of regionally agreed activities for aquaculture development between the countries of Uganda, Kenya and Tanzania

H. RECENT CONSULTANCIES UNDERTAKEN

- 1) Fisheries Value Chain Analysis with Pay Ecosystem Services and identification and developing of sustainable business enterprises for fisher community groups as a means for sustainable financing of co-management community operations for fisheries conservation and management on Lake Tanganyika in Uvinza and Tanganyika Districts. Cost of USD 125,000 funded by The Nature Conservancy (TNC), Sept to Dec 2020.
- 2) Aquaculture development and management expert for Midterm Review of Caritas Uganda Aquaculture Project for the engagement of youths and young adults in gainful employment through aquaculture business: Building Skills for Aquaculture Jobs (BSAJ) in the Dioceses of Arua, Gulu and Nebbi. Project funding and source: USD 15,800.00; Caritas Norway.
- 3) Provision of practical and business management skills training services on fisheries and aquaculture processing and product marketing for small scale enterprises in Ethiopia: UNIDO Project ID.: 16276 at cost of USD 238,000. This involved working as a Fisheries and Aquaculture Capacity Development Expert and providing training needs assessment for rural fisheries and aquaculture based SMEs in Lake Tana Basin; development of capacity building programme for selected enterprises for fisheries and aquaculture based SMEs in Lake Tana Basin; conducting of Training of Trainers' course for 20 local experts; conducting of five (5) training courses in doing business for 200 rural SMEs in fishing gear production and maintenance; fisheries ecotourism business; doing rural aquaculture as a business; fish feed processing and manufacture; and, fish processing and marketing; and provision of technical guidance on establishment and development of a 'fisheries and aquaculture business development centre'
- 4) Assessment of the Potential for Cage Aquaculture Development as means of enhancing the livelihoods of attendant fishing communities on lakes Edward and Albert" under the project "Nile Basin Initiative (NBI)/Nile Equatorial Lakes Subsidiary Action Program (NELSAP) Multinational lakes Edward and Albert Integrated Fisheries and Water Resources Management Project (LEAF II). Project funding and Source: USD 179,167; African Development Bank (AfDB). Key Tasks executed include: determining of the viability of cage aquaculture development for rural fishing communities; establishing the carrying capacity for cage aquaculture on lakes Edward and Albert; designing appropriate cage aquaculture systems and provide enterprise budgets for rural cage aquaculture; designing the operation guidelines and capacity building programme for rural cage aquaculture; and, developing pilot cage aquaculture programmes for the fishing communities
- 5) Aquaculture development and management expert for Caritas Uganda Aquaculture Baseline Survey in the Dioceses of Arua, Gulu and Nebbi for the engagement of youths and young adults in gainful employment through aquaculture business: Building Skills for Aquaculture Jobs (BSAJ). Project funding and source: USD 36.5000.00; Caritas Norway Activities:
- 6) Lead Consultant for a UNDP/FAO Project for integrating Agriculture Sector in the National Adaptation Planning process involving a consultancy to document 4 unique case studies on **climate change adaptation** practices in **Fisheries ad Aquaculture in Lake Victoria Basin**. The tasks of the assignment were: documenting 4 unique case studies of adaptation practices in fisheries and aquaculture with in Lake Victoria basin; identifying replicable/ scalable adaptation practices for the aquatic ecosystems of Uganda; assessing the vulnerabilities of the aquatic ecosystems and the dependent communities; proposing measures to address the vulnerabilities identified; identifying climate change adaptation practices in Lake Victoria basin; identifying barriers that may hinder the acquisition, deployment, and diffusion of prioritized technologies; and develop a Technology Action Plan (TAP); and designing a costed- upscaling plan based on the four case studies. Funded by Germany Federal Ministry of Environment and International Initiative for Climate Change July to December 2017.
- 7) Key Expert for "Training for **Fisheries** Regulatory Authorities, Businesses and Communities of the ARSO Members from EAC and SADC on **Risk Management in Regulatory Frameworks: Towards a Better Management of Risks**" under the ACP-EU Technical Barriers to Trade Programme project for the African Standards Organization (ARSO), September to December 2016.

- 8) Team Leader, Aquaculture and Fisheries Policy and Management Expert for consultancy for the "preparation of a feasibility study on the development of aquaculture and fisheries project (FADP) in Rwanda" including review and planning for fisheries research, extension and technical service provision. Rwanda Agriculture Board, Ministry of Agriculture and Animal Reosurces (MINAGRI), December 2014 to June 2015.
- 9) Team member under Dr. Mbabazi Dismas for the Consultancy on 'Assess The Fisheries And The Suitability For Cage Fish Farming In Lake Kivu Rwanda 'June to October 2014 by Rwanda Agriculture Board of the Ministry of Agriculture and Animal Resources, Kigali Rwanda
- 10) Team Leader for the Consultancy on 'Formulation of Environmental Monitoring and Auditing Guidelines for Agriculture Projects in Rwanda, Rwanda Environment Management Authority', May to July 2014.
- 11) Team Leader for the Consultancy on the study of the 'impact of Fertilizers (Agrochemicals) usage on Aquatic Ecosystems in Rwanda', by Rwanda Environment Management Authority, December 2013 to June 2014.
- 12) Lead Consultant for the Consultancy on 'Review and development of a regional Aquaculture Strategy for development of commercial aquaculture in East Africa Community' by ASARECA/World Bank August to December, 2013.
- 13) Lead Consultant for 'Review of the Comprehensive Africa Agriculture Programme Investment Plan for Malawi (ASWAp)', February to March 2013 by NEPAD/NPCA Fish Node for Africa.
- 14) Fisheries Expert on the Team for 'Review of the Comprehensive Africa Agriculture Programme Investment Plan for Mozambique (PNISA)', December 2012 February 2013, by NEPAD/NPCA.
- 15) Partner to Dr. Justus Rutaisire for a Consultancy for 'Development of Fisheries and Aquaculture Master Plan for Republic of Rwanda', 2010 2011 by Ministry of Agriculture and Animal Resources, Kigali Rwanda
- 16) Lead Consultant for 'Development of Eastern Africa sub regional Fisheries and Aquaculture Strategy for 2010 to 2014', by FAO
- 17) Consultant for 'Review of the National Sector Overviews for Fisheries sector in Republic of Uganda', 2009 by FAO
- 18) Consultant for 'Review of the National Sector Overviews for Aquaculture in Republic of Uganda', 2006 by FAO

I. RESOURCE MOBILIZATION AND PROJECTS MANAGEMENT RECORD

- Principal Investigator and Project Coordinator for EU funded project for Promotion of Environmentally Sustainable Commercial Aquaculture (PESCA, Lot 3, on "Upgrading the National Fish Feed Output, Quality and Reliability" by Ministry of Finance, Planning and Economic Development. **ECRAM Research and Management Consortium: US\$ 430,000, December 2019 to November 2020.**
- Co-implementing partner and investigator for EU funded project for Promotion of Environmentally Sustainable Commercial Aquaculture (PESCA, Lot 1, on "Producer Organizations (POs), Preparing Best Management Practices (BMPs) and Extension Capacity Enhancement" by Ministry of Finance, Planning and Economic Development. OMAL Research and Management Consortium: US\$ 750,000, December 2019 to November 2020.
- LEAF USD 267.189

• IGAD USD 179,673

- Principal Investigator for NARO funded project on 'Domesticating Singida tilapia (*Oreochromis esculentus*) and developing technologies for its aquaculture and bolstering of its wild remnant stocks' **ECRAM Research** and Management Consortium: US\$89,900, May 2014 to October 2015
- Managing Partner for MBZ Species Conservation Fund project on 'Conservation and Restoration of Singida Tilapia, Oreochromis esculentus', under **ECRAM Research and Management Consortium: US\$10,000**, May August 2014
- Managing Partner for MBZ Species Conservation Fund project on 'Conservation and Restoration of Singida Tilapia, Oreochromis esculentus', under **ECRAM Research and Management Consortium: US\$12,500**, December 2012 August 2013.
- Chairman Uganda Egypt Joint Technical Committee: 'Uganda Egypt Aquatic Weed Control Project 1999/present: US\$ 28.5 million funded by Arab Republic of Egypt involving Egypt, Rwanda, & Uganda
- Consultant for Eastern Africa Sub region Fisheries and Aquaculture Strategy 2010/2011, working under the FAO SFE Office, Addis Ababa, Ethiopia involving Burundi, Djibouti, Ethiopia, Kenya, Rwanda, Somalia, Sudan and Uganda US\$ 30,000
- Chairperson Ad hoc Committee for Aquaculture Network of Africa (ANAF): 2006 2010. Committee for Inland Fisheries and Aquaculture of Africa involving Cameroon, Kenya, Mali, Nigeria, Senegal, Tanzania, Uganda, Zambia
- Senior Researcher (in charge Genetics Studies) 2007 2010: Development of culture technologies for increased and sustainable production of the Nile Perch (*Lates niloticus*) (Linnaeus, 1758), US\$800,000 funded by Millennium Science Development Initiatives of the World Bank under the Uganda National Council of Science and Technology Uganda
- National Project Coordinator (2007-2008): National Aquaculture Development Strategy: TCP/UGA/3105 Funded by United Nations Food and Agriculture Organization (FAO) US\$67,624 Uganda
- National Coordinator (2006 to 2008). Regional subregional aquaculture project for East Africa under the Lake Victoria Fisheries Organization. US\$ 360,000 by FAO TCP involving Kenya, Tanzania and Uganda.
- Country Team Leader (2006 to 2008). Specific Targeted Research/Innovation Project Contract No. 032103: Integrating BOMOSA cage fish farming system in reservoirs, ponds and temporary water bodies in Eastern Africa funded by the EU INCO-DEV Euros 1,850,000 by European Union involving, Austria, Czech, Ethiopia, Italy, Kenya, and Uganda.
- Member of the GEF STAP Working Group (2005 to 2007): Risk Assessment and Management in use of Transgenic Fish for Aquaculture and/or Stock Enhancement.
- Team Member: (2003 to 2009). Regional Research Consortium under the VicRes Project of the Inter-University Council of East Africa: 'SYSTEM DESIGNS AND GUIDELINES FOR WETLANDS BASED AQUACULTURE IN THE LAKE VICTORIA BASIN' US \$150,000 by Swedish International Development Agency (SIDA) involving Kenya, Tanzania and Uganda
- National Aquaculture Committee Chair (2003-2010) under the Fisheries Development Project, MAAIF
 - o with support to aquaculture infrastructure of ~ \$\\$5,700,000;
 - o support to Fish Farmers of ~ US\$2,100,000 Uganda.
- National Coordinator (2002 to 2004). Restocking of minor lakes and water reservoirs under the Strategic interventions to promote exports, (Uganda Shillings 1.6 Billion annually).- Uganda
- Project Coordinator (2002 to 2005). Management and Coordinating of the UN Food and Agriculture Organization (FAO) project 'assistance to fish farmers in eastern Uganda' US\$ 357,000 by FAO TCP Uganda
- MAAIF Project Coordinator (2001 to 2003). Coordinating the NARO/MAAIF Small-scale Fish Farming Project of the MAAIF funded by DFID at tune of Sterling Pounds 2,500,000.
- Fisheries Biodiversity Specialist (1997 to 2001). Working as an expert on Fish Biodiversity and Conservation under the Fisheries Research Component of the Lake Victoria Environment Management Programme funded by World Bank under the IDA and GEF funding involving riparian states of Kenya, Tanzania and Uganda.
- Research Associate (1993 to 2000) in charge Tilapiine studies and overall field data collection Conservation of Lake Victoria Cichlids under the North American Consortium on Lake Victoria Cichlids US\$ 1,850,000 involving Kenya, Tanzania, Uganda and USA.

In addition to my regular and professional work I am also involved with other professional and public social responsibilities as indicated below:

1. Member of Advisory Committee for the National Fisheries Resources Research Institute (NaFIRRI) in the

- National Agricultural Research Organization (NARO).
- 2. Member of the Scientific Committee for NaFIRRI/NARO
- 3. Chairman Board of Governors, Kaluba High School, Kaluba, Mayuge District, Uganda
- 4. **Patron Bunya Village Bank**, a Saving and Credit Cooperative Organization in Mayuge Town Council, Mayuge District, Uganda 2003/present.

J. ACADEMIC RESPONSIBILITY

1) Advisor/supervisor

- Mwanja Tenywa Matthew 2007/2013: Doctorate The evolution of Nile perch, *Lates niloticus*, fisheries
 in Lake Victoria relative to its putative origins of Lakes Turkana and Albert, Makerere University
 Kampala
- Nkambo Mujibu (doctoral student), 2014-2019: Use, Production and Existence of *Artemia* Resources in Uganda and Africa. Makerere University Kampala.
- Nadiope Eric, 2005/2009: M Sc. student Analysis of the implementation and enforcement of the Fish Act in Uganda, Makerere University Kampala
- Mwanja Tenywa Matthew 2001/2004: M Sc. student Analysis of the population Genetic Structure of the Nile perch (*Lates niloticus*, Linnaeus 1758) in Lake Victoria (East Africa). MSc. Thesis – Zoology Department, Makerere University Kampala
- Msuku Scot Batman 2001/2004: M Sc. student Population Structure and Ecology of *Oreochromis esculentus* in satellite lakes Malimbe and Kubegena (Tanzanian part) of the Victoria lake basin. MSc. Thesis Zoology Department, Makerere University Kampala

2) External Examiner/Reviewer

- Basiita Komugisha Rose, 2005/2008: M Sc. student Aspects of Sex Development in Nile Perch (Lates Niloticus (L.): Pisces: Centropomidae juveniles: Implications on Aquaculture, Makerere University Kampala.
- Nyakuni Liverious 2009: MSc Dissertation: Habitat utilization and reproductive biology of Oreochromis niloticus in Albert Nile, Nebbi District, Makerere University Kampala.
- Daniel Ojambo (MSc Student): MSc Dissertation:
- Bagumire Annanias, 2004/2008: Doctoral student Food safety regulation in international trade: the obstacles to market the export of Uganda aquaculture products, Makerere University Kampal and Michigan University, Michigan USA.
- Mugume R.S., 2007: M Sc. student Some Fisheries Aspects of Lakes Nyabihoko and Nyakiyanja of Ntungamo District, Uganda. MSc Thesis Zoology Department, Makerere University Kampala
- Mbaiza 2007. Doctoral student Conservation of the orchids. Doctoral Thesis Department of Botany, Makerere University Kampala.
- 3) Public Discussant of the following students' graduate work:
 - Nalukenge Winnie Nkalubo (doctoral student), 2012: "Life history traits and growth of Nile perch, Lates niloticus (L), in Lake Victoria, Uganda: Implications for management of the fishery." Makerere University Kampala

K. COMMUNITY CONTRIBUTION

- **a.** Founder and Chairman/Executive Director of a Non-Government Organization: Rural-Urban Initiatives to Support Own Efforts (RISE). It is based in Mayuge District, Uganda and has been in existence since 2002 to present focused on mobilizing resources, technologies, life skills and expertise from urban areas to support the rural poor in Mayuge District.
- **b.** Founder and Director of a community Based Secondary School Delta High School, Mayuge Town Council, Mayuge District, Uganda 1997/present.
- c. Chairman and Member of the Management Board and Public Advisory Committee NARO Public Agricultural Research Institute for Fisheries 2009 to Present, Jinja, Uganda

L. PUBLICATIONS (69 peer reviewed publications):

- a. Peer Reviewed Journal Articles (28 articles)
- 1. Mwanja, W.W., Mwanja, R.K., Namumbya, S., Banga, M., Owani, S.O., Nadiope, E., Kwiri, C.W. and Mwanja, T.M. (Accepted, 2018). Exploration of natural and socioeconomic potential of Singida tilapia, *Oreochromis esculentus* (Teleostei: Cichlidae), Graham 1928, for its conservation and rural aquaculture development, Uganda Journal of Agricultural Science.
- 2. Banga M, Mwanja K.R., Namumbya S., Owani S.O, Nadiope E., Mwanja M.T. and Mwanja W.W. (2018). Socio-economic considerations for rural aquaculture development of Singida tilapia, *Oreochromis esculentus* (Teleostei: Cichlidae, Graham 1928) in Uganda, East Africa. International Journal for Research in Applied and Natural Science, 4 (1) January 2018. ISSN 2208-2085/
- 3. Mwanja T. M., Owani S. O., Nadiope E., Kwiri N., Kudeeba R., and Mwanja W.W. (2017). Feeding regimes for Singida tilapia (*Oreochromis esculentus*, Graham 1928) under controlled conditions: acceptance and utilization of natural feeds compared to dry rations. International Journal of Fisheries and Aquatic Studies 2017; 5(2): 420-424.
- 4. Mwanja, M.; Ondhoro, C.; Sserwada, M.; Achieng, P.; Ddungu, R.; and Mwanja, W. (2016). Morphological variation of Nile tilapia populations from major water bodies of Uganda. Uganda Journal of Agricultural Sciences, 2016, 17 (1): 21 32
- 5. Mwanja T. M., Muwanika V., Masembe C., Mwanja W.W. & Nyakaana S. (2014). Microsatellite DNA analyses reveal populations subdivisions among recently introduced Nile perch (Lates spp) in Lake Victoria. African Zoology 49(2), 181-194.
- 6. Mwanja W.W. and Nyandat B. (2013). Challenges and issues facing small-scale producers: perspectives from Eastern Africa, pp. xx-xx. In Bondad-Reantaso, M.G. and Subsinghe, R.P. (eds.), Enhancing the contribution of small-scale aquaculture to food security, poverty alleviation and socio-economic development: report and proceedings of an expert workshop. FAO Fisheries and Aquaculture Technical paper, No, 572, Rome, FAO, 2013, xxp.
- 7. Mudnakudu C. Nandeesha, Matthias Halwart, Ruth García Gómez, Carlos Alfonso Alvarez, Tunde Atanda, Ram Bhujel, R. Bosma, N.A. Giri, Christine M. Hahn, David Little, Pedro Luna, Gabriel Márquez, R. Ramakrishna, Melba Reantaso, N.R. Umesh, Humberto Villareal, Mwanja Wilson* and Derun Yuan. (2012). Supporting farmer innovations, recognizing indigenous knowledge and disseminating success stories. Expert Panel Review 6.4. In Farming the Waters for People and Food. R. P. Subasinghe, J. R. Arthur, D. M. Bartley, S. S. De Silva, M. Halwart, N. Hishamunda, C. V. Mohan & P. Sorgeloos. Proceedings of the Global Conference on Aquaculture 2010. Food and Agriculture Organization of the United Nations, Rome, Italy.
- 8. Mwanja T. M., Muwanika V., Masembe C., Nyakaana S. & Mwanja W.W. (2013). Evolutionary history of Nile perch inferred from mitochondrial DNA variation analyses. Journal of Zoological Studies
- 9. Mwanja, M.T., Mwanja, W.W., Muwanika, V., Masembe, C. and Nyakaana, S. (2012). Genetic evidence of successful establishment of the Nile perch (*Lates* spp. L.) in East African lakes and implications for management. Journal of Management of Biological Invasions, 3, (2): 77–88.
- 10. Mwanja W.W*., Fuerst A.P. and Kaufman L. (2012). The collapse of the ngege, *Oreochromis esculentus* (Teleostei: Cichlidae) populations, and resultant population genetic status in the Lake Victoria Region. *Uganda Journal of Agricultural Sciences*, 2012, 13 (2): 65-82 ISSN 1026-0919. Printed in Uganda. All rights reserved © 2012, National Agricultural Research Organisation.

- 11. Akoll P., Konecny R., Mwanja W.W* and Schiemer F. (**2012**). Risk assessment of parasitic helminths on cultured Nile tilapia (*Oreochromis niloticus*, L.). Aquaculture 356-357, pp 123-127.
- 12. Akoll P & Mwanja W.W*. (2012). Fish health status, research and management in East Africa: from the past to the present. African Journal of Aquatic Science, 37(2): 117–129.
- 13. Akoll P, Konecny R., Mwanja W.W*., Nattabi J.K., Agoe C. & Schiemer F. (2012). Parasite fauna of farmed Nile tilapia (Oreochromis niloticus) and African catfish (Clarias gariepinus) in Uganda Parasitology Research. 110: 315-323.
- 14. Akoll P, Konecny R., Mwanja W.W* & Schiemer F. (2011). Infection patterns of Nile tilapia (Oreochromis niloticus L.) by two helminth species with contrasting lifestyles. Parasitology Research 110 (4), 1461-1472.
- 15. Mwanja M.T, Muwanika V., Nyakaana S., Masembe C., Mbabaz D., Rutasire R. and Mwanja W.W*. (2011). Population morphological variation of the Nile perch (*Lates niloticus*, L. 1758), of East African Lakes and their associated waters. African Journal of Environmental Science and Technology, 5(11), 941-949.
- 16. Mwanja T.M., Nyende L.D., Kagoda S., Munguti M.J. and Mwanja W.W*. (2010). Characterization of fish oils of mukene (*Rastrineobola argentea*) of Nile basin waters Lake Victoria , Lake Kyoga and the Victoria Nil River. African Journal of Tropical freshwater biology 19, 1, 49-58.
- 17. Mwanja W.W.*, Kaufman L. and Fuerst P. A.(2010) 'Comparison of the genetic and ecological diversity of the native to the introduced tilapiines (Pisces: Cichlidae), and their population structures in the Lake Victoria region, East Africa', Aquatic Ecosystem Health & Management, 13: 4, 442 450.
- 18. Mwanja, T.M. and Mwanja W.W*. (2009). Escape of farmed Tilapiine into the wild and entry of farmed forms in fishponds, and possible interaction between wild and farmed tilapiines from a sample of smallholder farms in central Uganda. Africa Journal of Ecology. 47: 469-475
- 19. Mwanja T.M. and Mwanja W.W*. (2008) Preliminary results of the analysis of the population structure of the Nile perch (*Lates niloticus* Linnaeus, 1758) of Lake Victoria using microsatellite markers. African Journal of Biotechnology, 7(16), 2885-2892.
- 20. Mwanja W.W.*, Booton G.C., Kaufman L. and Fuerst P.A. (2008). A Profile of the introduced *Oreochromis niloticus* (Pisces: Teleostei) populations in Lake Victoria Region in relation to its putative origin of Lakes Edward and Albert (Uganda E. Africa) based on Random Amplified Polymorphic DNA analysis. Afri J. Biotechnol Vol. 7 No. 11, pp 1769 1773.
- 21. Mwanja, W.W.*, Akol A., Abubaker L., Mwanja M., Msuku S.B. and Bugenyi F.(2006). Status and Impact of Rural Aquaculture Practice on Lake Victoria Basin Wetlands. African Journal of Ecology, 45, 165-174.
- 22. Mwanja W.W. 2004. Role of satellite water bodies in evolution and conservation of Lake Victoria Region fishes. African Journal of Ecology, 42 (s1), 14-20.
- 23. Mwanja, W.W.*, L. Kaufman, and Fuerst P.A. 2000. Randomly Amplified Polymorphic DNA Markers: Conservation And Management Implications (*Abstract*). Ohio Journal of Science 100 (1): A38.
- 24. Mwanja W.W.*, Armoudlian A.S., Wu L., Wandera S.B., Booton G.C., Kaufman L. and Fuerst A.P. (2001). The Bounty of minor lakes: the role of small satellite water bodies in evolution and conservation of fishes in Lake Victoria region, East Africa. *Hydrobiologia* 458 (1-3), 55-62.
- 25. Fuerst P.A., Kaufman L. and Mwanja W.W.* (2000). Lake Victoria Region: Large lakes and their surrounding minor water bodies as a natural laboratory for adaptive ecology, speciation and evolution of fish species. Ohio Journal of Science 100 (1): A44.

- 26. Mwanja W*., Fuerst P.A. and Kaufman L. (1999). Lake Victoria Region: large lakes and their surrounding minor water bodies as natural laboratories for speciation and evolution. *International Lakes in Crisis*. North American Lake Management Society, Lakeline, 19(2), 12-24.
- 27. Mwanja, W*.; Chandler, M; Kaufman, L; Fuerst, A.P. 1995. (*Abstract*) Population structure and hybridization in fish: Lake Victoria Tilapia studied with Random Amplified Polymorphic DNA (RAPD) markers. *Ohio Journal of Science*, 95 (2).
- 28. Mwanja, W*. and Kaufman, L. (1995). A note on recent advances in genetic characterization of tilapia stocks in Lake Victoria Region. *African Journal of Tropical. Hydrobiology of Fishes 6, 51-5.*

b. Peer Reviewed Book Articles (20 articles)

- 1. Balirwa J., Sekiranda S., Okello W., Aanyu M. and Mwanja W. W. (submitted) Fisheries Ecosystem. In, Y. Baguma (Ed.). National Agricutlural Research Organization for the last 50 years since independence. Fountain Publishers, Kampala, Uganda.
- Fioravanti M.L., Florio D., Gustinelli A.1, Caffara M., Turci F., Konecny R., Nikowitz T., Wathuta E.M.4, Magana A., Otachi E.O., Matolla G.K., Warugu H.W., Liti D.5, Mbaluka R., Thiga B., Munguti J., Akoll P., Mwanja W.*, Kassahun D., & Tadesse Z. (2009). In Drexler S.S. and Waidbacher H. (Eds.) Book of Abstracts (Final Conference; Machakos, Kenya; 2nd to 4th September 2009), Universität f. Bodenkultur Universitätsbibliothek, ISBN-Number: 978-3-900962-84-5. Available at: http://bomosa.oeaw.ac.at/mains/book of abstracts vers2.pdf
- 3. Akoll P., Konecny R., Fioravanti ML., Mwanja W. W*., Mwanja M.W., and Schiemer F. (2009). **Risk evaluation of parasite transmission to caged fish in Uganda**. In Drexler S.S. and Waidbacher H. (Eds.) Book of Abstracts (Final Conference; Machakos, Kenya; 2nd to 4th September 2009), Universität f. Bodenkultur Universitätsbibliothek, ISBN-Number: 978-3-900962-84-5. Available at: http://bomosa.oeaw.ac.at/mains/book of abstracts vers2.pdf.
- 4. Tadesse Z., Fioravanti M.L., Mwanja W.W., and Wathuta E.M. (2009) **Overview of the legal and regulatory framework for inland aquaculture up scaling in Eastern Africa**. In Drexler S.S. and Waidbacher H. (Eds.) Book of Abstracts (Final Conference; Machakos, Kenya; 2nd to 4th September 2009), Universität f. Bodenkultur Universitätsbibliothek, ISBN-Number: 978-3-900962-84-5. Available at: http://bomosa.oeaw.ac.at/mains/book_of_abstracts_vers2.pdf
- 5. Mwanja M.T., Mwanja W.W., Munguti J.M. and Bende A. (2009). Analyses of Potential Fish Feed Ingredients and Formulation Low Cost High Nutritional Value Feed for Low Volume High Density BOMOSA cage Culture of Nile tilapia based in ponds, reservoirs and temporary water bodies for rural fish production, Uganda. In Drexler S.S. and Waidbacher H. (Eds.) Book of Abstracts (Final Conference; Machakos, Kenya; 2nd to 4th September 2009), Universität f. Bodenkultur Universitätsbibliothek, ISBN-Number: 978-3-900962-84-5. Available at: http://bomosa.oeaw.ac.at/mains/book of abstracts vers2.pdf
- 6. Bende A.J., Mwanja T.M. & Mwanja W.W. (2009). Cultural influences on fish eating as barriers to the adoption of appropriate technologies for farmed fish production in a pastoral corridor in Uganda: the case of BOMOSA cage fish farming project introduction in Nakasongola district. In Drexler S.S. and Waidbacher H. (Eds.) Book of Abstracts (Final Conference; Machakos, Kenya; 2nd to 4th September 2009), Universität f. Bodenkultur Universitätsbibliothek, ISBN-Number: 978-3-900962-84-5. Available at: http://bomosa.oeaw.ac.at/mains/book of abstracts vers2.pdf
- 7. Mwanja W.W.*, Akol A., Abubaker L., Mwanja M., Msuku S.B., Bugenyi F. A. Bende and M Banga-Mwanja (2008). Socioeconomics Aspects of Rural Aquaculture Practice in Lake Victoria Basin Wetlands, East Africa. In (Ed.) 'African Fishes and Fisheries Diversity and Utilization'. Book of Abstracts, The Department of Biology, The Ethiopian Fisheries and Aquatic Sciences Association, Addis Ababa University, Ethiopia, *pp*190

- 8. Kapuscinski J., Hard J., Neira R., Paulson K., Ponniah A., Kamonrat W., Mwanja W*, Fleming I. (2007). Approaches to Assessing Gene Flow. In (ed.) Kapuscinski, A.R., K.R. Hayes, S. Li and G. Dana (eds). (E. M. Hallerman and P.J. Schei, series editors). 2007. Environmental Risk Assessment of Genetically Modified Organisms, Vol 3: Methodologies for Transgenic Fish. CABI Publishers. 310 pp.
- 9. Mwanja, W.W. (2007). Freshwater fish seed resources in Uganda, East Africa, pp. 461-476. In:Bondad-Reantaso, M.G. (ed.). *Assessment of freshwater fish seed resources for sustainable aquaculture*. FAO Fisheries Technical Paper No. 501. Rome, FAO. 628 pp.
- 10. Mushi V.E, Oenga D.N and Mwanja W.W*. (2005). Meeting the increasing fish demand through development of aquaculture in the Lake Victoria Basin. In: LVFO 2005. The state of the Fisheries Resources of Lake Victoria and Their Management: Proceedings of the Entebbe Regional Stakeholders' Conference. 24-25 February 2005, Entebbe Uganda, pp 159-165.
- Mwanja W.W*., Fuerst P.A. and Kaufman L. (2005). Opportunities and challenges to conserve genetic diversity of the fish resources of the Lake Victoria Region, East Africa. In LFVO 2005:
 Proceedings of Lake Victoria 2000 A new Beginning Conference, 15-19 May 2000, Jinja Uganda. ISBN: 9970-713-11-1, pp 212-220.
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- 14. Mwanja W.W*., Booton C.C., Kaufman L., Chandler M. and Fuerst P. (2004). Population and stock characterisation of Lake Victoria tilapiine based on RAPD markers. In Edward M. Donaldson & Don D. Mackinley (eds.) Aquaculture Biotechnology Symposia Proceedings. American Fisheries Society, 115-124.
- 15. Mwanja W.W*. and Fuerst P*, 2003. How issues of genetic diversity affect management of African inland water fisheries: the example of Lake Victoria Region. *In T.L. Crisman, L. Chapman, C.A. Chapman, & L. Kaufman* (eds.), *Conservation of Aquatic Biodiversity of Africa*, pp 288-300. University Press of Florida Press, Gainesville, Florida.
- 16. Mwanja, W.W*. (2000). Genetic Biodiversity and Evolution Two Principal Fisheries Species Groups, the Labeine and Tilapiine of Lake Victoria Region, East Africa. Thesis of Ohio State University, Columbus Ohio, USA.
- 17. Fuerst P.A., Mwanja W.W*. and Kaufman L. (2000). The genetic history of the introduced Nile tilapia of Lake Victoria (Uganda, East Africa): The population structure of *Oreochromis niloticus* (Pisces: Cichlidae) revealed by DNA microsatellite markers. Proceedings of the Fifth International Symposium on Tilapia in Aquaculture (ISTA V) Brazil.
- 18. Mwanja W.*, Bugenyi F. and Kaufman L. (1997). Genetic characterization of tilapiine stocks in the Lake Victoria Region, p33-34. In R.S.V. Pullin, C.M.V. Casal, E.K. Abban, and T.M. Falk (eds) Characterization of Ghanaian tilapia genetic resources for use in fisheries and aquaculture. ICLARM conf. Proc. 52, 58p.
- 19. Fuerst A.P., Mwanja W.*, Kaufman L. and Booton G.C.(1997). Genetic phylogeography of introduced *Oreochromis niloticus* (Pisces: Cichlidae) in Uganda. Tilapia Aquaculture, In (NREAS 106) Proceedings of the Fourth International Symposium on Tilapia in Aquaculture (ISTA IV), National Research and Engineering Service, Ithaca New York, 1, 87-96.

20. Mwanja Waiswa Wilson (1992). Resource utilization and trophic interactions among 0+ fishes of the Regelsbrunn back water of the river Danube (Austria). Thesis for Postgraduate Certificate in Limnology, Mondsee, Austria.

c. Peer reviewed technical reports and professional papers. (20 Technical papers and Reports)

- 1. Negroni G. and Mwanja W.W. (2016). Training for regulatory authorities, businesses and communities of the ARSO Members from EAC and SADC on Risk Management in Regulatory Frameworks: Towards a better management of risks. ACP-EU Technical Barriers to Trade Project www.unece.org/fileadmin/DAM/trade/wp6/.../Annex6-CountryReport Uganda.doc
- 2. Mwanja W.W. (2014). Assessment of fisheries and aquaculture contribution to the Agriculture sector led growth agenda in Malawi. Researchgate: **DOI:** 10.13140/RG.2.2.15164.23680
- 3. Mugabira, M., Borel, P., & Wilson Mwanja, D. (2013). National Investment Policy for Aquaculture Parks in Uganda. Ministry of Agriculture, Animal Industry and Fisheries, Entebbe.
- 4. Mwanja W.W. and Nyandat B. (2013). Challenges and issues facing small-scale producers: perspectives from Eastern Africa, pp. xx-xx. In Bondad-Reantaso, M.G. and Subsinghe, R.P. (eds.), Enhancing the contribution of small-scale aquaculture to food security, poverty alleviation and socio-economic development: report and proceedings of an expert workshop. FAO Fisheries and Aquaculture Technical paper, No, 572, Rome, FAO, 2013, xxp.
- 5. Mudnakudu C. Nandeesha, Matthias Halwart, Ruth García Gómez, Carlos Alfonso Alvarez, Tunde Atanda, Ram Bhujel, R. Bosma, N.A. Giri, Christine M. Hahn, David Little, Pedro Luna, Gabriel Márquez, R. Ramakrishna, Melba Reantaso, N.R. Umesh, Humberto Villareal, Mwanja Wilson* and Derun Yuan. (2012). Supporting farmer innovations, recognizing indigenous knowledge and disseminating success stories. Expert Panel Review 6.4. In Farming the Waters for People and Food. R. P. Subasinghe, J. R. Arthur, D. M. Bartley, S. S. De Silva, M. Halwart, N. Hishamunda, C. V. Mohan & P. Sorgeloos. Proceedings of the Global Conference on Aquaculture 2010. Food and Agriculture Organization of the United Nations, Rome, Italy.
- 6. Mwanja W.W.*, Signa D. and Eshete D. (2011). Fisheries and Aquaculture Sector Review for Eastern Africa. SFE Technical Document Series, Food and Agriculture Organization of the United Nations Subregional Office for Eastern Africa Addis Ababa.
- 7. **January 2017:** Effectiveness and efficiency of fertilizer use in Rwanda. Produced for MINAGRI, REMA, UNEP and UNDP.
- 8. **December 2015:** Social Assessment Report: Development of Urban Infrastructure in six Secondary Cities of Rubavu, Rusizi, Musanze, Muhanga, Huye and Nyagatare of Rwanda, and the City of Kigali. Produced for MINAFRI, LODA and World Bank, Kigali Rwanda.
- November 2015: Environment Management Framework: Development of Urban Infrastructure in six Secondary Cities of Rubavu, Rusizi, Musanze, Muhanga, Huye and Nyagatare of Rwanda, and the City of Kigali. Produced for MINAFRI, LODA and World Bank, Kigali Rwanda.
- 10. **November 2015:** Resettlement Policy Framework: Development of Urban Infrastructure in six Secondary Cities of Rubavu, Rusizi, Musanze, Muhanga, Huye and Nyagatare of Rwanda, and the City of Kigali. Produced for MINAFRI, LODA and World Bank, Kigali Rwanda.
- 11. **September 2015:** Environmental Assessment Study on Coffee Washing Stations & designing of a modal Wastewater Treatment System. Rwanda Environmental Management Authority, Kigali Rwanda. Produced for NAEB, Kigali, Rwanda

- 12. June 2015: Final Report on the Consultancy Services for Environmental and Social Impact Assessment (ESIA) for the proposed construction of a pier at the National Fisheries Resources Research Institute (NaFIRRI), Jinja of NARO, and construction and refurbishment of offices, laboratories, conference halls and residential buildings for World Bank and Uganda National Agricultural Research Organization (NARO): Reference No.: .NARO/SRVCS/14-15/033 part of the Agricultural Technology & Agribusiness Advisory Services Project CR. NO 47690, Project ID NO. P109224
- 13. **May 2014:** Sector specific guidelines for Environmental Monitoring and Audit for Agricultural Projects. Produced for Rwanda Environmental Management Authority, Kigali, Rwanda.
- 14. **June 2013:** Impact of fertilizer use Rwanda: Rweru-Mugesera Lakes-Wetlands Complex. Produced for Rwanda Environmental Management Authority, Kigali Rwanda.
- 15. Mwanja W.W. (2009). Republic of Uganda National Aquatic Animal Biosecurity Capacity. In Melba B. Reantas, Rohana P. Subasinghe and Ramesh Perera (eds.), Report of the FAO Workshop on the Development of an Aquatic Biosecurity Framework for Southern Africa. Lilongwe, Malawi, 22–24 April 2008. FAO Fisheries and Aquaculture Report. No. 906. Rome, FAO. 2009. 55p. FAO Fisheries and Aquaculture Report No. 906 FIMA/R906. ISSN 2070-6987.
- 16. Mwanja W.W. Cultural influences on fish eating as barriers to adoption of appropriate technologies for farmed fish production in a pastoral corridor in Uganda: the case of BOMOSA cage fish farming projects introduction in Nakasongola district
- 17. Mwanja W.W.*, Akol A., Abubaker L., Mwanja M., Msuku S.B., Bugenyi F. and Banga M (2008). Toward a social economically suitable model for rural aquaculture in Lake Victoria Wetlands, pp 347. In E. Tielkes (ed), Competition for Resources in a Changing World New Drive for Rural Development. Cuvillier Verlag 647pp.
- 18. Bende A.J. and Mwanja W*. (2008). Assessing the Relevance of Market Skills in Community Development and Household Progress in Rural Poor Communities: A Case Study of Kasolwe and Ndorwa Rural Communities in Kamuli District, Eastern Uganda. Tropentag 2008. http://www.tropentag.de/2008/abstracts/full/198.pdf
- 19. Mwanja, W.W. (2006). National Aquaculture Sector Overview (NASO) of Uganda. United Nations Food and Agriculture Organization Website www.fao.org/fishery/countrysector/naso_uganda/en
- 20. Mwanja W*., Olok S., Mulonda Kalende B., Brugere C., and Moehl. J. (2005). Small-scale for profit hatcheries as catalyst for aquaculture development in Eastern Uganda and models for successful South to South cooperation. FAO Newletter (FAN) No. 33.
- 21. Mwanja, W*. and P. A. Fuerst. 1995. Conservation and development of Lake Victoria Fishery: biodiversity and genetics. *Proceedings of ARTP Symposium on Ugandan Agricultural Research*, p. 7.

M. PRESENTATIONS AT PROFESSIONAL/INTERNATIONAL MEETINGS AND INVITED SEMINARS

- Mwanja Waiswa Wilson (2019). Integrated Fisheries Management for Three Transboundary Rivers in IGAD for the Period 2021 to 2031. IGAD Regional Workshop for Adoption of the Draft Fisheries Integrated Plans by IGAD Member States of Ethiopia, Kenya, Somalia and South Sudan, Bishoftu, Ethiopia.
- Mwanja Waiswa Wilson (2016). Domestication and aquaculture technologies development as a means of
 conservation of the critically endangered Singida tilapia (Oreochromis esculentus) of Uganda. Joint Agricultural
 Scientific Conference by NARO and Makerere University Kampala, at Munyonyo Speak Hotel Kampala.

- Mwanja Waiswa Wilson (2012). Collapse and ways for resuscitation of the Ngege, *Oreochromis esculentus*, fisheries in Lake Victoria Region. National Agricultural Research Organization Scientific Conference, Imperial Botanical Beach Hotel, Entebbe Uganda.
- Mwanja Waiswa Wilson (2011). National Fisheries Sector Overview. National Stakeholders Consultation and Fisheries Research Needs Assessment. The National Fisheries Resources Research Institute (NaFIRRI), Jinja Uganda.. Available at: http://www.firi.go.ug/presentations/national-fishery-overview-wilson-mwanja.pdf
- Mwanja W.W. (2009). Republic of Uganda National Aquatic Animal Biosecurity Capacity. In M.B. Reantaso and R.P Subasinghe, FAO Workshop on the Development of an Aquatic Biosecurity Framework for Southern Africa Lilongwe, Malawi, 22–24 April 2008. FAO Fisheries and Aquaculture Report No. 906, FIMA/R906 (En).
- Preliminary results of analysis of the population structure of the Nile perch (Lates niloticus Linnaeus, 1758) of Lake Victoria using microsatellite markers: 4th International Conference of the Pan African Fish and Fisheries Association (PAFFA), Addis Ababa, Ethiopia 2008.
- Toward a social economically suitable model for rural aquaculture in Lake Victoria Wetlands. Presentation at the International Conference of Re-circulating Aquaculture (ICRA) and the Issues Forum of the Aquaculture Engineering Society, Roanoke Virginia, USA 2008
- Changed Tilapiine Fishery of Lake Victoria Region. Presentation at the GLOW V: Aquatic Systems Management and Health Society, Addis Ababa, Ethiopia 2008
- Large lakes and their surrounding minor water bodies as a natural laboratory for speciation and evolutionary biology. Presentation at the GLOW V: Aquatic Systems Management and Health Society, Addis Ababa, Ethiopia 2008
- Status and Impact of Rural Aquaculture on Lake Victoria Basin Wetlands. Presentation at the 7th Conference for the Aquaculture Association of South Africa, held at Grahamstown South Africa 2005
- Wilson Waiswa Mwanja, Anne Akol, Matthew Mwanja, Laila Abubaker, Scot Batman Msuku, and Fred Bugenyi. 2004. Systems Design and Development of Guidelines for Sustainable, and Environmentally Responsible Profitable wetlands-based small-scale aquaculture. Annual General Meeting, VicRes Programme, East African Inter University Council
- Paul A. Fuerst, Wilson W. Mwanja* and Les Kaufman. 2000. The opportunities and challenges to conservation of genetic biodiversity of the fishery of the Lake Victoria Region, East Africa. *Lake Victoria 2000, Jinja Uganda*.
- Wilson W. Mwanja*, Audrey S. Armoudlian, Lizhao Wu, Silvester B. Wandera, Gregory C. Booton, Les Kaufman and Paul A. Fuerst. 1999. The Bounty of minor lakes: the role of small satellite water bodies in evolution and conservation of fishes. *International Conference on Sustainable Use and Management of Tropical Waters, Naivasha Kenya*.
- Wilson W. Mwanja*, Audrey S. Armoudlian, Lizhao Wu, Silvester B. Wandera, Gregory C. Booton, Les Kaufman and Paul A. Fuerst.1998. Ecological and Evolutionary Changes of Fish species in the Lake Victoria Region and Lake Edward Albert System: the role of minor satellite water bodies. Symposium on African Great Lakes. International Association of Great Lakes Research conference, McMaster University, Hamilton, Canada.
- Paul A. Fuerst, Wilson W. Mwanja*, Lizhao Wu, Gregory C. Booton, Les Kaufman. (1998). Use of DNA
 Microsatellite Markers to Study Genetic Diversity in the Species of the Genus Oreochromis from Lake Victoria
 Region. International Conference on Tropical Fishes, Southampton, UK.

- Wilson W. Mwanja*, Les Kaufman, Paul A. Fuerst. 1998. Genetic characterization of populations ningu, *Labeo victorianus*, and two other species of East African *Labeo (Pisces: Cyprinidae) International Conference on Tropical Fishes, Southampton, UK*.
- Paul A. Fuerst, Wilson W. Mwanja*, Gregory C. Booton, Ioannis Batjakas. Les Kaufman.1998. Of Lake Victoria Region Tilapiines: the displaced and isolated; shrunk and native; the restricted and exotic; and the expanded and introduced., FISA/PARADI African Fish and Fisheries: Utilisation and Diversity conference, JLB Smith Institute of Ichthyology, Grahamstown, South Africa.
- How issues of genetic diversity affect management of African inland water fisheries: the example of the Lake Victoria Region. Carter Lecture Series on Conservation of Aquatic Biodiversity of Africa, University of Florida Gainsville. 1999
- Challenges of Social and Ecological Sustainability in Africa. The MacArthur Interdisciplinary Program on Peace and International Cooperation and Rockefeller Foundation. 1997.
- Conservation and Development of the Lake Victoria Fishery Agriculture Research Training Program Research Program Symposium, Cornell University, Ithaca, NY, USA. 1995.
- Conservation Genetics of Lake Victoria Cichlids. Fisheries Research Institute, Jinja, Uganda. 1994.

N. PROFESSIONAL MEETINGS ATTENDED

- National Agricultural Scientific Conference, by NARO and Makerere University, Speak Hotel Munyonyo Kampala 2016.
- o BOMOSA Cage Fish Farming Scientific Conference, Machakos, Nairobi Kenya, 2009
- Fourth International Conference of the Pan African Fish and Fisheries Association African Fish and Fisheries:
 Diversity and Utilization, Addis Ababa, Ethiopia, 2008
- Great Lakes of the World Conference organized by the Aquatic Systems Management and Health Society, Addis Ababa, Ethiopia 2008
- Aquatic animal health and Biosecurity for Southern Africa Countries organized by the UN Food and Agriculture Organization, Lilongwe Malawi 2008.
- 7th Biannual Conference of Aquaculture Association of South Africa, Grahamstown, South Africa 2005
- Sixth International Symposium on Genetics in Aquaculture, University of Sterling, Sterling, Scotland, UK.
 1997
- Ohio Academy of Science, Otterbein, Ohio, USA, 1997.
- o International Congress on Biology of Fishes, San Francisco, 1996.
- o Annual meeting of Society of Molecular Evolution and Society of Systematic Biologists, 1996.
- Joint meetings of the Society for Systematic Biologists, Society for the Study of Evolution, American Society of Naturalists and Numerical Taxonomy Group, Montreal, Canada. 1995.
- o Molecular Approaches to Marine Ecology and Evolution. Santa Fe, New Mexico, USA. 1995.
- o The Species Survival Plan for Lake Victoria Cichlids (SSPLV), Columbus, Ohio, USA. 1994.
- o International decade for East African Great Lakes (IDEAL), Jinja, 1993
- o Ecotones and their role in Fish Ecology, Lunz, Austria. 1992.
- The international Society for Applied and Theoretical Limnology (SIL), Barcelona, Spain. 1992.

O. MEMBERSHIP TO PROFESSIONAL BODIES AND GROUPS:

- 1) Pan African Fish and Fisheries Association
- 2) Aquatic Systems Health and Management Society
- 3) Food Security CHAMPIONS under Feed for Future USAID Programme
- 4) Aquaculture Policy Working Group NEPAD/NCPA
- 5) AfriFishnet African fisheries and aquaculture professional organization/association
- **6)** Aquaculture Engineering Society, AES
- 7) Aquaculture Society for East Africa ASEA
- 8) Aquaculture Network for Africa ANAF
- 9) Regional Aquaculture Working Group Lake Victoria Fisheries Organization, East Africa

- 10) The International Society for Applied and Theoretical Limnology (SIL)
- 11) International Network for Genetics in Aquaculture (INGA)
- 12) International Symposium on Tilapia in Aquaculture (ISTA)
- 13) East Africa Water Associations (EAWA).
- **14)** Africa Agribusiness Platform African/Agriculture/Trading

P. CERTIFICATES AND AWARDS

- 1) Certified Champion for Food Security as through the Change Leadership Training Course
 - a. Organization: Africa Lead under USAID and CAADP under NEPAD
 - b. Date: September 2011
- 2) Certificate of participation in Small-scale aquaculture study tour in Thailand
 - a. Organization: Asian Institute of Technology Aquaculture and Aquatic Resources Management
 - b. Date: September 17 to 22, 2001
- 3) Certificate of participation in training course on Traceability in the fish supply chain
 - a. Organization: NR International and SFP
- 4) Certificate for successful completion of workshop on fishery management for African countries\
 - a. Organization: Government of China, Ministry of Commerce
 - b. Date: November 10th, 2006
- 5) Certificate of recognition as a member of the National Organizing Committee for the World Food Day
 - a. Organization: FAO and Ministry of Agriculture, Animal Industry and Fisheries, Uganda
 - b. Date 28th October 2008
- 6) Award of excellence in appreciation for relentless service to the association
 - a. Organization: The All Africa Students Association of Ohio State University
 - b. Date: May 28th 1994
- 7) Certificate of Recognition for participating in and contribution to the ARTP Agricultural Research Symposium conducted at Cornell University
 - a. Organization: Cornell International Institute for Food, Agriculture and Development
 - b. Date: June 13-17 1995
- 8) Successful completion of a Basic Cadre Development Course/Retreat at the National Leadership Institute, Kyankwanzi, Uganda
 - a. Organization: National Leadership Institute Kyankwanzi
 - b. Date: May 16th 2003
- 9) Certificate for successful completion of Module 1 The New Procurement System of the rCTB Public Sector Procurement Reform Training Programme
 - a. Organization: Public Asse
 - b. Date: March 18th 2002
- 10) Placard for Committed Quality Service
 - a. Organization: Environmental Services Department, Riverside Methodist Hospitals
 - b. Date: September 15, 1999

Q. REFEREES

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Signed

Mwanja Waiswa Wilson, Date: 27th April, 2022.

Emang Hair Ma.