

CURRICULUM VITAE

PERSONAL DETAILS

NAME: Aventino Kasangaki
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PROFILE SUMMARY

I have over 20 years' experience in ecological research, teaching, and project development and management in natural resources. My first year of work was spent as a Fisheries Officer implementing government programs to improve fish production in Kabarole district. The work involved enforcing government policies to conserve freshwater resources in the district. For over 9 years I was engaged in biodiversity research and monitoring in south-western Uganda. The work involved assessing the status of natural resources in both protected area and agricultural landscapes with the aim of detecting human impacts including climate change. The work involved designing of field studies, fundraising, report writing and dissemination of research findings to stakeholders. Dissemination of findings was done locally at information sharing workshops and at international conferences.

I have over ten years of university teaching experience where I teach several courses in the natural sciences. As a lecturer, I teach several courses in both terrestrial and aquatic ecology. Over my professional career, I have engaged in consultancy work on assessing the impacts of development projects on natural resources and community livelihood. Previously, I implemented a biodiversity and

ecosystem services project aimed at enhancing the benefits communities derive from nature through advocating market-based approaches to conservation such as payment for environmental services. Under the project, we raised climate change adaptation and mitigation awareness by documenting and disseminating experiences from south-western Uganda, Rwanda and Burundi. Recently I coordinated a water resources assessment project funded by the Greater Virunga Trans-boundary Secretariat in the Lake Edward basin while I was also a Consultant Fish Biologist and Stock Assessment Scientist at NARO/NaFIRRI in Jinja. I am currently an Associate Professor of Zoology at Kabale University.

EDUCATION BACKGROUND:

- **Mbarara University of Science & Technology, Uganda- PhD (2008).**
THESIS: Effects of deforestation on stream fish assemblages of Bwindi Impenetrable National Park and adjacent areas, and implications for conservation. Supervisors: Prof. Lauren Chapman and Dr. John Balirwa.
- **Makerere University, Kampala Uganda. (1998)** (M.Sc.) in Zoology majoring in Vertebrate Ecology, Wildlife Management and Conservation. Master's Thesis: Small mammal communities along an elevational gradient in Bwindi Impenetrable National Park.
- **Makerere University, Kampala, Uganda. (1996)** Post Graduate Diploma in Education (PGDE)- Second Class in Biology and Physical Education,
- **Makerere University, Kampala, Uganda (1995)** Degree of Bachelor of Science, Second Class Lower Division (B.Sc. Hon) in Botany and Zoology, majoring in Ecology and Wildlife management and Hydrobiology and Fisheries management.

WORK EXPERIENCE

January 2021 to present: Associate Professor of Zoology, Kabale University

June 2015 to December 2020: Senior Lecturer in Biological Sciences, Busitema University Uganda.

June 2014 to March 2016: Consultant Fish Biologist/Stock Assessment Scientist; National Fisheries Resources Research Institute. As a Fish Biologist I design studies to assess the status of fish populations in the different water bodies in Uganda taking into consideration human impacts such as overfishing, pollution and fish introductions. I also take part in catch assessment surveys to determine the status of fish stocks at different landing sites. We also carry out frame surveys to determine the fishing effort/fleet in different water bodies as an indicator of fishing pressure on a water body.

December 2013 to 2018: Research Associate, Institute of Tropical Forest Conservation, as a research associate, I designed research projects in the field of freshwater and terrestrial ecology and also fundraise for the projects. Research findings are disseminated to Uganda Wildlife Authority and other partners for informed management of natural resources.

June 2011 to April 2013: Biodiversity and Ecosystem Services Program Manager, at the Albertine Rift Conservation Society. June 2011 to March 2013. As a Biodiversity and Ecosystem Services Program (BESP) Manager, I oversaw all aspects of the BESP, which sought to catalyze the creation of a robust regional program with high-quality triple-benefit– specifically that help mitigate climate change, protect biodiversity and create sustainable livelihoods for local communities. I worked to ensure that good standards for biodiversity and ecosystem services were widely integrated in ARCOS programs and projects. Under the project, I engaged government agencies and civil society working in natural resource management with the aim of mainstreaming biodiversity, climate change and ecosystem services' themes into development plans.

March 2008 to June 2011: Lecturer, Mbarara University of Science & Technology. Courses taught: Advanced Ecology; Island Biogeography, Ichthyology, Hydrobiology, Vertebrate Structure and function and Animal Classification. I also supervised students' research projects in addition to designing field studies.

January 2002 to March 2008: Senior Research Officer Ecological Monitoring Program,

August 1999 to 2001: Research Officer Ecological Monitoring Program-

May 1998 to August 1999: Fisheries Officer: Kabarole District Local Government, As a Fisheries Officer, I implemented government programs and enforced policies for improving fish production in the district. I also provided extension services to improve agricultural productivity in the district.

June 1998 to May 1999: Biology Teacher Kyebambe Girls School, Classroom teaching, supervision of school activities

Duties at the Institute of Tropical Forest Conservation;

1. To design, implement, direct and participate in a multidisciplinary research and monitoring of ecological relationships and biodiversity at the Mgahinga and Bwindi National Parks and to disseminate the research findings to stakeholders through workshops and reports.
 2. Establish and implement the multiple-use program (including the collection, compilation and analysis of data) working closely with the community and other involved organizations.
 3. Supervision of Junior Staff, budgeting and drafting of annual operation plans.
 4. Contributing to the design of field studies in different disciplines.
 5. Participating in them whenever possible to get full understanding of the methods employed, aims, results and their relationships to other aspects of study.
- Since 1999 I headed the Water quality monitoring program that assesses the effects of human activities on streams and rivers in and around Bwindi

Impenetrable National Park. It involved assessing potential climate change impacts on freshwater resources.

- July 2010 appointed acting head of Department, Biology to June 2011.

SHORT COURSES /TRAINING

- Data Analysis for Conservation Biologists in R (The Smithsonian Institute, Virginia, USA) March 2020
- Economic Tools for Conservation and Infrastructure Planning in the Albertine Rift, Kasese Uganda. Conservation Strategy Fund June 11th - 22nd, 2012.
- Climate Change and its impacts: Brown International Advanced Research Institutes 2010.
- Short Course on Water Quality Assessment, 12th February to 2nd March 2007 at UNESCO-IHE, Delft the Netherlands.
- Leadership for Eco agriculture in East Africa Course, November 2006, Naivasha, Kenya.
- ESRI GIS course, Redlands USA, June 2006.
- Summer Certificate Course in Sustainable Environmental Management (Beahrs Environmental Leadership Program), June - July 2004 University of California Berkeley.
- Team Leader, Virunga conservation area mountain gorilla census (DRC, Rwanda & Uganda) 2003.
- Visiting Scholar, University of Florida, Gainesville September to November, 2002.
- Training in Geographical Information Systems (GIS) for Environment and Natural Resource Managers (MUIENR September 1999).
- Training in methods of biodiversity surveys under the Afrotropical Biodiversity Program (MUIENR 1997)

Professional Societies' Membership

- Society for Conservation Biology (SCB) (Board member of the Freshwater Working Group)
- Ecological Society for Eastern Africa (ECSEA) Founding Member
- Ecoagriculture Partners, Uganda chapter
- Nature Uganda
- British Ecological Society

TECHNICAL ABILITIES

Mammalogical:

- Knowledge and considerable field experience of mammal surveys and research methods e.g. Gorilla census

Aquatic biota:

- Good knowledge of a wide range of aquatic macro invertebrate fauna and freshwater fish sampling techniques.

Botanical:

- Knowledgeable in quantifying non-timber forest resources and various plant sampling techniques and participatory rural appraisal methods.

Limnological

- Experienced in a wide range of limnological sampling techniques.

Computers

- Computer literate with considerable experience in Microsoft Office, several statistical analysis packages, and a light user of ArcGIS mapping software.

Program /project management:

- I have experience in managing conservation and development projects, research and ecological monitoring programs.

CONSULTANCY WORK

- Aquatic Ecologist (National Consultant-ERM) Updating of ESIA for the Achwa Hydropower projects 2020 to 2021

- Aquatic Ecologist Team Lead, Atacama Consulting-Albert Graben Refinery Project (AGRP) Environmental and Social Impact Assessment (ESIA), Nov 2020-to date
- Freshwater Resources Specialist: Baseline Environmental and Socioeconomic studies in the Sipi micro catchment Water Resources Management and Development Project, Ministry of Water and Environment, May to August 2018.
- Aquatic Ecologist: Aquatic Ecology Monitoring of the Waki SHP Project, River Waki Hoima District Uganda: Hydromax (Nkusi) Ltd, July 2017.
- Sub Consultant to provide services for cumulative impact assessment for Achwa Hydropower Projects (HPP – 1, HPP – 2, HPP – 3, HPP – 4 &HPP – 5) along River Achwa and River Agago in Pader and Gulu Districts. April 2017.
- Water Resources Specialist: Hydrological and water quality assessment of the Lake Edward Basin catchment Uganda. The Greater Virunga Transboundary Secretariat. March 2016 to March 2017.
- Lead Consultant: Conducting Hydrological and Agronomic Assessment of the Development of Payment for Ecosystem Services Scheme in the Bugoma Forest of Uganda: Chimpanzee Trust, September 2016.
- Sub consultant: to conduct fisheries studies for the update of the report for the proposed Waki small hydro power project in Hoima District, Uganda, to meet International Finance Corporation Performance Standards: Atacama Consulting November 2015.
- Lead Consultant: Terrestrial and freshwater biodiversity assessment for the Lake Victoria Project: Fauna and Flora International Uganda. March –April 2016.
- National Consultant: Hydrological and Agronomic baseline studies for Payment for watershed services Project in Rwenzori Mts. WWF Uganda August to November 2015.

- Lead Consultant, Baseline Ecological Assessment for the HOPE-LVB II Population Health and Environment (PHE) project. Pathfinder International, Uganda. June to August 2015.
- Sub-consultant (Atacama Consulting) Aquatic Ecologist on Update report for the Ndugutu River Small Hydro Power Project, Bundibugyo District Uganda. July 2015
- Sub-consultant (Atacama Consulting) Aquatic Ecologist on Update report for the Nyamagasani I Small Hydro Power Project, Kasese District Uganda. July 2015
- Sub-consultant (Atacama Consulting) Aquatic Ecologist on Sindila Small Hydropower Power Project, Bundibugyo District to meet International Finance Corporation Performance Standards. May 2015.
- Ecological Assessment baseline survey for the HOPE-Lake Victoria basin population, health and environment (PHE) project. Lead Consultant, Pathfinder International. April to May 2014.
- Assessing the impact of plantation forestry on Biodiversity in Kikonda Forestry Reserve, Masindi Uganda. Lead Consultant for Global Woods AG March 2013.
- Ecological and socioeconomic baselines for the Population, Health and Environment (PHE) Project: Team member. Pathfinder International, May to October 2012. I reviewed natural resource policies in Uganda and Kenya while identifying gaps and opportunities for implementing PHE programs.
- Training Rwandan scientists in monitoring water quality using biological methods: June to August 2012. UNESCO Consultant, Butare Rwanda.
- Assessment of species sensitivity to climate change in Rwenzori Mts National Park, Team member. WWF Uganda and Uganda Wildlife Authority- 2012 ongoing.
- Development of an ecological monitoring program for the Rwenzori Mountains National Park, Team member 2009. Uganda Wildlife Authority and WWF Uganda Country Office

- Aquatic ecologist for the biodiversity scoping of the Hima Cement proposed reopening of the Dura Quarry, International Finance Cooperation, November 2007.
- Aquatic ecologist for the Biodiversity subproject of the Kibale Fish and monkey project to assess landuse impacts on biota around Kibale National Park. 2005-2007.

LANGUAGES

Fluent in English, Runyoro, Rutooro.

Working knowledge of Runyankole, Rukiga, Luganda and Swahili.

PEER-REVIEWED PUBLICATIONS

- Mukisa W, Yatuha J, Andama M and Kasangaki A (2020) Heavy metal pollution in the main rivers of Rwenzori region, Kasese District South-western Uganda. Oct. Jour. Env. Res. Vol. 8(3): 078-090.
- Failler, P., Kasisi, R., Akachuku, C., Assogbadjo, A., Boyd, E., Effiom, E., Elias, P., Halmy, M. W. A., Heubach, K., Mohamed, A., Ntshane, C., Rajoelison, G., Lambini, C., Kasangaki, A., and Mahamane (2019) Nature's Contributions to people and quality of life. In The IPBES regional assessment report on biodiversity and ecosystem services for Africa. Pp 77-130
- Katcho Karume, Mashimango Bagalwa, **Aventino Kasangaki**, Robert Bitariho James Byamukama (2016) Hydrological Systems in the Greater Virunga Landscape: Water Quality around Mikeno Sector. Journal of Water Resource and Protection 01/2016; 08(03):382-396. DOI:10.4236/jwarp.2016.83032
- Fugère, V., **A. Kasangaki**, and L. J. Chapman (2016). Land use changes in an afrotropical biodiversity hotspot affect stream alpha and beta diversity. Ecosphere 7(6):e01355. 10.1002/ecs2.1355.
- **Kasangaki A** (2013) Status of Ecosystem Services in the Albertine Rift Region. In Kanyamibwa S (ed.) *Albertine Rift Conservation Status Report*.

Albertine Rift Conservation Series No 1. ARCOS Network, March 2013. Pp25-28.

- **Kasangaki A** & Bitariho R (2013) A Review of Benefit Sharing and Community Conservation Approaches in the Albertine Rift Region. In Kanyamibwa S (ed.) *Albertine Rift Conservation Status Report. Albertine Rift Conservation Series No 1. ARCOS Network, March 2013. Pp 77-81.*
- Laurence, W.F. et al (2012). Averting biodiversity collapse in tropical forest protected areas. *Nature* 489: 290-294.
- **Kasangaki et al.** 2012. Capturing the benefits of ecosystem services to guide decision-making in the Greater Virunga Landscape of the Albertine Rift Region. ARCOS, University of Cambridge and WWF-US. Project Technical Report to MacArthur Foundation.
- **Kasangaki A**, Bitariho R., Shaw P., Robbins M., & McNeilage, A. (2012) Long-term ecological and socio-economic changes in and around Bwindi Impenetrable National Park, south-western Uganda. In Plumptre A (Ed.) *Nova Science Publishers. The Ecological Impact of Long-Term Changes in Africa's Rift Valley.* Hauppauge, New York pp. 106-124.
- **Kasangaki, A** (2009) Freshwater resources in Uganda: The Lifeblood of Communities, pp 103. *In Footprint Fact Book: Africa 2009. Securing Human Development in a resource Constrained World.* Global Footprint Network.
- Van Heist, M., Sheil, D., Bitariho, R. & **Kasangaki, A.** (2008) Financing forest conservation in Uganda. *ETFRN News*, 49: 112-120.
- **Kasangaki, A.**, Chapman L, & Balirwa J S (2008) Land use and the ecology of benthic macroinvertebrate assemblages of high-altitude rainforest streams in Uganda. *Freshwater Biology*, 53: 681-697.
- **Kasangaki A**; Babaasa D, McNeilage A, Efitre J & Bitariho R (2006) Links between anthropogenic perturbations and benthic macroinvertebrate assemblages in Afromontane Forest Streams in Uganda. *Hydrobiologia* 563: 231-245.
- McNeilage A, Robbins M. M, Gray M, Olupot W, Babaasa D, Bitariho R, **Kasangaki A**, Rainer H, Asuma S, Mugiri G, Baker J (2006) Census of the

mountain gorilla population in Bwindi Impenetrable National Park, Uganda. *Oryx* 40(4), 419-427.

- Babaasa D, Eilu G, **Kasangaki A**, Bitariho R & McNeillage A (2004). Gap characteristics and regeneration in Bwindi Impenetrable National Park, Uganda. *African Journal of Ecology* 42, 217-224.
- Kasangaki A (2005) Ranger-based water quality monitoring for protected natural areas in Uganda. *Beahr's Environ Leadership Progr Newsl* 4:11–15
- **Aventino Kasangaki** · Robert Kityo · Julian Kerbis (2003) Diversity of rodents and shrews along an elevational gradient in Bwindi Impenetrable National Park, south-western Uganda. *African Journal of Ecology* **41(2):115 - 123**

CONFERENCE PROCEEDINGS/REPORTS/THESES

- Kasangaki A and Gandhi W (2020) The link between human activities, water quality and benthic macroinvertebrates in the headwaters of Lake Edward Basin, Uganda: Management lessons. GEO BON Open Science Conference (virtual) July 2020, Germany.
- Kasangaki A (2018) Impact of hydropower dams on stream fishes of Rwenzori Mts, Abstract. PAFFA 6, Malawi.
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- Kasangaki et al (2013) Integrated Landscape Assessment and Monitoring of status and use of ecosystem services around three protected area networks in the Albertine Rift region. ARCOS Internal Report.
- Kasangaki et al. 2012. Capturing the benefits of ecosystem services to guide decision-making in the Greater Virungas Landscape of the Albertine Rift Region. ARCOS, University of Cambridge and WWF-US. Project Technical Report to MacArthur Foundation.
- Kasangaki, A., Chapman L, Chapman, C., Omeja P & Twinomugisha, D. (2009) Land use effects on stream water quality in and around Kibale National Park, Uganda. In *Proceedings of Diversitas Open Science Conference 2: Biodiversity and Society, understanding connections, adapting to change*. 13-16 October 2009, Cape Town South Africa.
- Hitt, Nathaniel, et al (2007). "New International Efforts for Freshwater Research, Education, and Conservation: A report from the Society for Conservation Biology's Freshwater Working Group". In *Proceedings of*

the 2007 International Conference on Ecology and Transportation, edited by C. Leroy Irwin, Debra Nelson, and K.P. McDermott. Raleigh, NC: Center for Transportation and the Environment, North Carolina State University, 2007. pp. 604.

- Kasangaki, A., Resh V., Chapman L., Gandhi W., Otika P., & Muhabwe R (2007) Use of benthic macroinvertebrates to assess the conservation status of streams and rivers in the Albertine Rift region of Uganda. Proceedings of the Society for Conservation Biology 21st Annual Meeting, 1st-5th July 2007, Port Elizabeth, South Africa.
- Babaasa, D., Eilu, G., Kasangaki, A. and Bitariho, R. (2001). Canopy gap characteristics in a logged Albertine Rift Afromontane forest island. **In** Tropical Ecosystems: Structure, Diversity and Human Welfare. Proceedings of the International Conference on Tropical Ecosystems. Ganeshiah, K.N., Uma Shaanker, R. and Bawa, K.S., (eds.)-Oxford-IBH, New Delhi. Pp. 282-285.
- Kasangaki A (2007) Effects of anthropogenic disturbance on stream fish assemblages of Bwindi Impenetrable National Park, South-western Uganda. PhD Thesis, Mbarara University of Science & Technology, Mbarara 182pp.
- Kasangaki, A., L. J. Chapman & J. B. Balirwa (2004). Fish fauna of an Afromontane forest and implications for conservation (Abstract). Annual Conference of the Society for Conservation Biology, Columbia, New York, USA.
- Kasangaki A, Effitre J, Babaasa D, McNeilage A, and Bitariho R. 2002. Benthic macro invertebrates in biomonitoring in Bwindi Impenetrable National Park, Uganda. (Abstract). Annual Conference of the Society for Conservation Biology. Canterbury, Kent, UK.
- Bitariho R, McNeilage A, Babaasa D, and Kasangaki A. 2002. The impact of harvesting wild plants in the multiple-use zones of Bwindi Impenetrable National Park, Uganda. (Abstract). Annual Conference of the Society for Conservation Biology. Canterbury, Kent, UK

- Babaasa D, Bitariho R, Gray M, McNeilage A, Malenky R and Kasangaki A. 2000. Adaptive ecological monitoring in two Albertine Rift Afromontane island forests. (Abstract). Annual Conference of the Society for Conservation Biology. Missoula, Montana, USA.

GRANTS/AWARDS

- WWF-EFN Professional Development Grant, \$ 3500
- TWAS –UNESCO Grant \$3100, 2018
- Mohammed Bin Zayed Biodiversity Foundation grant \$12,000, 2019
- CEBIOS: Volarising Biodiversity indicators in Mt Elgon, 3500 euros (2018)
- International Foundation for Science (IFS) first grant, \$9000 (2009)
- Rufford 2nd Small Grants Foundation, £6000, (2008)
- British Ecological Society Fellowship, £7000, (2009)
- Ecoagriculture Partners seed grant of \$15000 (in partnership with ECOTRUST & WWF Ruwenzori Project) for landscape analysis of the River Mubuku watershed. (2007).
- Beahrs Environmental Leadership Program, SGI grant \$ 9,940. (2005).
- Allcatfishes grant \$ 2000. (2005)
- Beahrs Environmental Leadership program \$ 7,000 scholarship to attend the Summer certificate course in Sustainable Environmental Management, University of California Berkeley (June-July 2004).
- Padi Foundation grant \$3800. (2004)
- Society for Conservation biology travel grant \$1680; to attend the society's annual meeting, University of British Columbia, New York (July-August 2004)
- Rufford Small grant GBP 5000. (2003)
- WWF Professional Development Grant to attend annual SCB conference (University of Minnesota, Duluth) \$2300. (2002)

- British Airways Communities and Conservation Projects, Travel Award. (2002)
- Wildlife Conservation Society, Small Grants Program \$ 3859 (2002)
- Association for Tropical Biology grant to attend ATB conference in Bangalore India \$ 800. (2001)
- Mgahinga and Bwindi Impenetrable Forest Conservation Trust \$ 1500 (1997/98)
- New York Zoological Society \$ 1800 (1997)

REFEREES:

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