



# Nicholas Outa

PhD Scholar at Maseno  
University, Kenya

## Details

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## Links

[About me](#)  
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## Skills

Scientific Writing and Publishing

Aquaculture

Fisheries Science

Mentorship

Public speaking

## Bio data

Nationality: Kenyan

Date of Birth: 16<sup>th</sup> January 1986

## Profile

As a doctoral candidate in Fisheries and Aquaculture at Maseno University, Kenya, I possess both academic expertise and field experience. In addition, I have demonstrated my commitment to developing smallholder aquaculture farmers through training and coaching on various Technologies, Innovations and Management Practices (TIMPs).

At the core of my professional philosophy are several guiding principles, which include conceptual thinking, impactful communication, a drive for results, relationship and network building, objective leadership, integrity, commitment, and optimism. These competencies serve as the foundation for my career ambitions, and I strive to uphold them in all aspects of my career and life.

## Education

**PhD in Fisheries and Aquaculture, Maseno University, Kenya**

JANUARY 2021 — PRESENT

- I am currently working on my doctorate in Fisheries and Aquaculture.
- My research focuses on the potential of Nutrient Film Technology (NFT) Aquaponic System in enhancing nutrient and water-use efficiency for fish and crop production.

**MSc. Limnology and Wetland Management, UNESCO-IHE Institute for Water Education-Delft, University of Natural Resources and Life Sciences, Vienna (BOKU) & Egerton University**

SEPTEMBER 2012 — JUNE 2014

- I have a Master of Science in Limnology and Wetland Management.
- For my thesis, I conducted research on the Biological Aspects of Nile Tilapia in Lake Naivasha, Kenya.

**BSc. Applied Aquatic Science, Egerton University, Nakuru**

AUGUST 2006 — OCTOBER 2010

I graduated with a Second-Class Honors Upper Division.

**Kenya Certificate of Secondary Education (KCSE), Kisumu Boys High School, Kisumu**

MARCH 2001 — DECEMBER 2004

I obtained B+

**Kenya Certificate of Primary Education (KCPE), Wang'bith Primary School, Siaya**

JANUARY 1993 — DECEMBER 2000

I scored 534 marks out of the possible 700

## Employment History

### **Part time Lecturer at Maseno University, Kisumu**

SEPTEMBER 2016 — PRESENT

- I work in the Department of Animal and Fisheries Sciences where I teach, evaluate, and mentor students in Fisheries and Aquaculture courses.
- I also coordinate research projects and create publication and research output communication plans.

### **Part time Lecturer at Kisii University, Kisii**

JULY 2018 — FEBRUARY 2020

- I worked in the Fisheries and Aquatic Sciences, where I taught, evaluated and mentored students.
- As the lab team leader, I conducted research and published several research articles.

### **Head of Research and Mentorship at Centre for Research and Technology Development**

JULY 2016 — FEBRUARY 2020

- I identified thematic areas of interest, recruited potential interns, and created funded project funding proposals.
- I supervised and mentored interns and reported to the director on their progress.

### **Research Fellow at Centre for Research and Technology Development (RESTECH), Kisumu**

APRIL 2014 — APRIL 2017

- I collected, analyzed and interpreted data on the ecological and biological aspects of various fish species in Lake Victoria and the rivers surrounding the lake
- I developed and tested various fish culture systems, with a particular emphasis on the aquaculture potential of various fish species
- I was trained in Nagasaki University, Japan, on live food culture and use in aquaculture, as well as otolith analysis, as part of the project for six months.
- Based on the data I collected, I published scientific papers in peer-reviewed journals.

### **Research Assistant at Victoria Institute for Research on Environment and Development (VIRED) International, Kisumu**

OCTOBER 2010 — OCTOBER 2012

- I assisted the PhD student in collecting and analyzing samples and data in the field and laboratory as part of the Ecology of Livelihoods in African Papyrus Wetlands (ECOLIVE) Project.
- I collected and analyzed water quality, plant diversity, and decomposition data in the Nyando wetland and around Lake Victoria.

## Consultancies

### **Development of BDS Curricular and Modules for Smallholder farmers in Siaya and Busia Counties**

JULY 2024 — SEPTEMBER 2024

I led the Development of Business Development Services (BDS) for smallholder farmers in Siaya and Busia Counties

### **Conducting Enterprise capacity assessments and development of business training curricula for Aquaculture value chain actors in the Coastal Region for YISA Programme- for Farm Africa**

JUNE 2024 — SEPTEMBER 2024

I led the Development of Business Development Services (BDS) and Curricular and Modules for the mariculture farmers and other value chain actors in Kilifi County

### **Short Consultancy on Review of Aquaculture Development Pathways in Asia and Africa: Case Studies from a resource-use efficiency context for World Bank, Kisumu**

MARCH 2022 — JUNE 2022

I coordinated the team of consultants who conducted a short consultancy for the World Bank on 'Review of Aquaculture Development Pathways in Asia and Africa: Case Studies from a resource-use efficiency context.'

### **Rapid Assessment of Fish Market Systems in Kisumu and Homabay Counties for Practical Action, Kisumu**

JULY 2021 — SEPTEMBER 2021

For **Practical Action**, I led a team of consultants who examined the fish value chain and the role of women and SMEs in the sector.

### **Diagnostic Study on Blue Economy for Strategic Planning in Kenya for MasterCard**

MARCH 2021 — APRIL 2021

I coordinated the literature review, Planning, data collection and report writing for a consultancy for the MasterCard Foundation on the role of youth in the Kenyan Blue Economy sector.

### **Assessment of the Effects of COVID-19 on the Fish Market Systems in Kenya for WorldFish, Kisumu**

MARCH 2021 — MAY 2021

I coordinated data collection and enumerator training and supervision during the consultancy for WorldFish on the effects of COVID-19 on the Kenyan fish value chain.

## Research Projects

### **Scientific Communications coordinator for the Kenya Climate- Smart Agriculture Project, Siaya, Kakamega and Busia Counties**

FEBRUARY 2020 — DECEMBER 2022

I coordinated KCSAP research and data collection activities aimed at validating Technologies, Innovations, and Management Practices (TIMPs) in the Aquaculture Value Chain.

### **Optimizing Artemia Production Technology for Sustainable aquaculture Development (APTSAD) project, Malindi**

FEBRUARY 2021 — DECEMBER 2022

The WIOMSA-funded project aims to improve coastal communities' livelihoods by optimizing Artemia resource production for local aquaculture initiatives.

I helped with the coordination and planning of project research and scientific communications activities.

### **BLUE-CYCLING - Integrated Aquaculture and Agriculture for Resource-efficient Food Production, Maseno**

JANUARY 2022 — PRESENT

The project assesses climate change-related risks for fish value chains, such as the effects on producers, prices, availability, quality, international trade, and food security, as well as the resulting changes in consumer behavior.

As a PhD student attached to the project, I coordinate the research and other activities related to the project. I also mentor and coordinate other MSc students within the project.

### **Trainer at the Open Peer Reviewers in Africa Project**

MARCH 2022 — PRESENT

In the project, I train and mentor early career researchers in scientific peer review, scientific research ethics, and Open Science in the African context.

### **PrAEctiCe Project**

NOVEMBER 2022 – PRESENT

I coordinate and ensure the smooth running of project activities by tracking the ongoing and upcoming project meetings and activities and informing the team through a centralized system (TRELLO)

## Courses

### **Training on Scientific Communication and Publishing, Training Center in Communication (TCC-Africa)**

SEPTEMBER 2018 — OCTOBER 2018

**Training on the use of fish otoliths and scales in fish age determination and culture of live food in aquaculture, Nagasaki University, Japan**

MARCH 2015 — JUNE 2015

**Training on computer application packages, Ushindi Computer College**

FEBRUARY 2009 — MAY 2009

**Training on counseling skills and theories, Egerton University**

MARCH 2008 — APRIL 2008

## **Scientific Writing and Publication**

**Research Capacity Advisor at TCC-Africa, Nairobi**

MARCH 2019 — PRESENT

I have trained, supported, and mentored over 1000 students and researchers in scientific writing, publishing, and communication.

**Academic editor for PLOS One**

JANUARY 2021 — PRESENT

- Technical editing of manuscripts before publication
- Assigning reviewers and handling review comments

**Head of Submissions Moderation at AfricArXiv, Berlin**

DECEMBER 2021 — PRESENT

- I moderate and curate submissions at the AfricArXiv, which is a Pan-African Open Access Repository.
- Over the last 6 months, my diligent and timely moderation and feedback has increased submissions from about 10 per day to more than 50 per day.

**Mentor at Eider Africa, Nairobi**

MARCH 2021 — PRESENT

- I currently supervise 200 mentees at various stages of their Masters or PhD studies.

**Peer Reviewer for various Scientific Journals**

JANUARY 2017 — PRESENT

I review and make recommendations on scientific research articles submitted to various journals upon request.

## **Scientific Publications**

1. **Outa, N. O.**, Kitaka, N., & Njiru, J. M. 2014a. "Length-Weight Relationship, Condition Factor, Length at First Maturity and Sex Ratio of Nile Tilapia, *Oreochromis niloticus* in Lake Naivasha, Kenya." *Journal of Fisheries and Aquatic Studies* 2(2): 67–72.
2. **Outa, N. O.**, Kitaka, N., & Njiru, J. M. 2014b. "Some Aspects of the Feeding Ecology of Nile Tilapia, *Oreochromis niloticus* in Lake Naivasha, Kenya." *Journal of Fisheries and Aquatic Studies* 2(2): 1–8.

3. **Outa, N. O.**, Yongo, E., & Keyombe, J. 2016. "Ontogenic Changes in Prey Ingested by Nile Perch, *Lates niloticus* Caught in Nyanza Gulf of Lake Victoria, Kenya." *Lakes and Reservoirs: Research and Management* 20: 1–5.
4. **Outa, N. O.** & Ogello, E. 2019. "Culture trials of Nile perch, *Lates niloticus* in cages and earthen fishponds". *World Aquaculture Society Magazine* 50 (September): 45-48.
5. **Outa, N. O.**, Obama, P., Ondemo, F., & Ogello, E. (2019, September 20). "The status of research on Lake Victoria fisheries: Historical and current data on fisheries and the lake environment." <https://doi.org/10.31730/osf.io/6gr7d>
6. **Outa, N. O.**, Mungai, D., & Keyombe, J. L. (2019, October 9). "Review on the impacts of introduced species on lake ecosystems: A case of Lakes Victoria and Naivasha, Kenya." <https://doi.org/10.31730/osf.io/b5nyt>
7. **Outa N. O.**, Yongo E. O., Keyombe J. L. A, Ogello E. O., & Namwaya W. D. (2020). A review of the status of some major fish species in Lake Victoria and possible conservation strategies. *Lakes and Reservoirs: Research and Management* 00 1–7. <https://doi.org/10.1111/lre.12299>
8. **Outa N.** (2021). The Potential of Freshwater Multitrophic Aquaculture (FIMTA) for Sustainable Cage Culture in Lake Victoria. <https://doi.org/10.24531/osf.io/r87pr>
9. **Outa, N.**, Waithaka, E., Boera P., Morara G., Mutie A., Loki P., Obegi B., & Ogello, E. (2020 in press). Fish breeding areas: Is this the solution to increasing fisheries productivity of Lake Naivasha, Kenya? Accepted for publication: *Fisheries and Aquaculture Journal*.
10. **Outa, N.**, Ogello, E., Okinyi, N., Mungai, D., & Iteba, J. (2022; in press). Ecological implications of *Rastrineobola argentea* (omena) fishery: A rapid assessment of bycatch diversity at Dunga Beach, Lake Victoria, Kenya. (Accepted for Publication in *Aquaculture, Fish and Fisheries*)
11. Kembenya, E. M., Marcial, H. S., **Outa, N. O.**, Sakakura, Y., & Hagiwara, A. 2016. "Captive Breeding of Threatened African Carp, *Labeo victorianus*, of Lake Victoria". *Journal of the World Aquaculture Society*, 47(3), 309–458.
12. Aera N. C., Kembenya, M. E., Ogello, O. E., Muthoni, G. C., Yasindi, W. A., **Outa, N. O.**, & Munguti, M. J. 2014. "Length-weight relationship and condition factor of Common carp, *Cyprinus carpio* in Lake Naivasha, Kenya." *Journal of Current Research*, 6(9), 8286–8292.
13. Rongoei, J. K., & **Outa, N. O.** 2016. "*Cyperus papyrus* L. Growth Rate and Mortality in Relation to Water Quantity, Quality and Soil Characteristics in Nyando Floodplain Wetland, Kenya." *Open Journal of Ecology* 6: 714–735.
14. Yongo, E. O., **Outa, N. O.**, Kito, K., & Matsushita, Y. 2017. "Some aspects of the biology of Nile perch, *Lates niloticus* in Lake Victoria, Kenya." *Lakes and Reservoirs: Research and Management*, 20, 1–6.
15. Yongo, E, Manyala, J. O., Kito, K., Matshusita, Y., **Outa, N. O.**, & Njiru J M. 2016. "Diet of Cyprinid, *Rastrineobola argentea* in Lake Victoria, Kenya." *Journal of Advanced Research*, 4(4):144-149.

16. Yongo, E. & **Outa, N. O.** 2017. "Growth and Population Parameters of Nile Tilapia, *Oreochromis niloticus* (L.) in the Open Waters of Lake Victoria, Kenya." *Lakes and Reservoirs: Research and Management* 21: 375–379.
17. Yongo, E. & **Outa, N. O.** 2017. "Spatial Distribution and Abundance of Zooplankton Communities in Lake Victoria, Kenya." *Journal of Fisheries and Aquatic Research* 2(1): 33–35.
18. Yongo, E, **Outa, N. O.**, & Ngodhe, S. O. 2017. "Effects of Water Hyacinth (*Eichhornia crassipes*; Solm) Infestation on Water Quality, Fish Diversity and Abundance in the Nyanza Gulf Lake of Victoria, Kenya." *Journal of Fisheries and Aquatic Research* 2(1): 8–10.
19. Yongo, E., Manyala J. O., K. Kito., Matsushita, Y., **Outa, N. O.**, & Njiru, J. M. 2016. "Length-Weight Relationship, Condition Factor, Sex Ratio, Gonadal Somatic Index and Size at Maturity of Omena, *Rastrineobola argentea* (Pellegrin, 1904) in Lake Victoria, Kenya." *Journal of Advanced Research* 4(6): 1740–1746.
20. Yongo, E, **Outa, N. O.**, & Owili, M. 2018. "Growth and Recruitment of Nile Perch, *Lates niloticus* (L.) in the Open Waters of Lake Victoria, Kenya." *Lakes and Reservoirs: Research and Management* 31: 575–579.
21. Yongo, E., **Outa, N. O.**, Kito K., & Matsushita Y., 2016. "Studies on the biology of Nile tilapia (*Oreochromis niloticus*) in Lake Victoria, Kenya: in light of intense fishing pressure". *African Journal of Aquatic Sciences* 43(1): 243-246.
22. Oduma F., M'Erimba C., Kariuki S., & **Outa N.** (2020 in press). Leaf Litter Processing Rates in tropical rivers in the Mount Kenya region: Influence of stream size and forest type. Accepted for Publication; *Journal of Forestry and Wood Science*.
23. James L K., Obiero K., Waithaka E., **Outa N.**, Donde Oscar & Kyule D (2020). Understanding selected growth aspects in Redbelly Tilapia (*Coptodon zilli*) and Largemouth Bass (*Micropterus salmoides*) in Lake Naivasha, Kenya; Fisheries management perspective. *Pan Africa Journal* 1(1) 64-76.
24. Waithaka E., Yongo E., & **Outa N.** and Eunice Mutethya (2020). Population biology of Nile tilapia (*Oreochromis niloticus*) in Lake Naivasha. *Lakes and Reservoirs: Research and Management* 25 (1) 244-259.
25. Waithaka E., Boera P., Obegi B., Mutie A., Morara G., Loki P., Nyamweya, C., Aura, M. & **Outa N.** (2020). The impacts of co-management towards sustainable development and utilization of fisheries resources in Lake Naivasha, Kenya. *Poultry, Fisheries and Wildlife Science Journal* 8 209-220.
26. Otieno, D., Hilda, Nyamweya, C., Odoli, C., Aura, C., & **Outa, N.** (2019). Water Hyacinth (*Eichhornia crassipes*) infestation, interactions with nutrients, aquatic biota and a control weevil in Winam Gulf, Lake Victoria, Kenya. <https://doi.org/10.31730/osf.io/r67yj>
27. Omweno J, Orina P, Getabu A & **Outa N.** (2020). Growth and Aquaculture Potential of Tilapia jipe, *Oreochromis jipe* and Nile tilapia,



*Oreochromis niloticus*. *Journal of Fisheries and Aquatic Studies* 8(3) 395-399.

28. Obwoye W. Z, Gatabu A., Ogello E., Omweno J & **Outa N.** (2020). Condition factor of Nile Tilapia, *Oreochromis niloticus* reared under different protein levels in a Biofloc system. *International Journal of Advanced Research* 8(12) 25-34.

29. Ogello O., Mwaruwa M., **Outa N.** & Ojwando W. (2021). Characterization of anthropogenic litter pollutants in African freshwater ecosystems: A case study of Dunga beach in Lake Victoria, Kenya. <https://doi.org/10.432764/osf.io/r67yj>.

30. Ogello E., **Outa N.**, Kizito O., & Kyule D. (2021). Socio-economic Implications of Imported Frozen Tilapia on the Local fish Production and Value Chain Linkages: Case of Kisumu County, Kenya. *AfricArXiv* (Science Open). <https://doi.org/10.14293/111.000/000018.v1>

31. Dennis Otieno, Hilda Nyaboke, Chrisphine Sangara Nyamweya, Cyprian Ogombe Odoli, Christopher Mulanda Aura, **Nicholas Otieno Outa** (2021). Water hyacinth (*Eichhornia crassipes*) infestation cycle and interactions with nutrients and aquatic biota in Winam Gulf (Kenya), Lake Victoria. *Lakes and Reservoirs: Research and Management* 27 e12391.

32. Erick O Ogello, **Nicholas O Outa**, Kevin O Obiero, Domitila N Kyule, Jonathan M Munguti (2021). The prospects of biofloc technology (BFT) for sustainable aquaculture development. *Scientific African* 14 e01053.

33. Reflecting on the use of persuasive communication devices in academic writing. <https://zenodo.org/record/6375872>

Full list here: <https://scholar.google.com/citations?user=P-mAhyUAAAAJ&hl=en>

## References

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