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Degrees

BSc, Mphil, PGD(statistics), PhD (University of Ghana)

Research Interests

1. Evaluating farm-made and commercial fish feeds
2. Developing nutritionally-balanced and cost-effective fish feeds using locally available novel ingredients

Profile of Dr Francis A. Anani

Research Scientist,
CSIR-Water Research Institute
Lecturer,
CSIR-College of Science and Technology

Dr Francis A. Anani is a Research Scientist at the Council for Scientific and Industrial Research-Water Research Institute (CSIR-WRI), stationed at the Aquaculture Research and Development Centre (ARDEC) at Akosombo in the Eastern Region of Ghana. He also lectures in Fish Nutrition and Feeding at the MPhil level at the CSIR College of Science and Technology. He obtained his Bachelor's degree in Zoology in 2001, Master's degree in Fisheries Science in 2008, Post Graduate Diploma in Statistics in 2008, and PhD in Fisheries Science in 2015, all at the University of Ghana.

Dr Anani has an enormous experience in fish nutrition and feeds, with various expertise including animal nutrition and physiology, feed formulation and development, feed ingredient and feed evaluation, aquaculture and culture system evaluation as well as fish stock management. With his expertise, Dr Anani's research focuses on: using locally available ingredients and their by-products to develop nutritionally-balanced and cost-effective fish feeds, particularly for Nile tilapia and the African catfish (the two most-cultured fish species in Ghana), application of various phytogenic additives to enhance the efficiency of both farm-made and commercial fish feeds, use of novel ingredients in fish feed formulation, production and their evaluation.

Dr Anani is a reviewer for a number of local and international peer-reviewed journals. He has supervised many undergraduate and post-graduate students for their industrial attachments at the CSIR-WRI-ARDEC at Akosombo. He has also been involved in training of many local and international aquaculture practitioners. He has involved in the execution of a limited number of projects including evaluation of locally produced commercial fish feeds, PlanetFinance Cage Fish Farming for selected communities within the Asuogyaman District in the Eastern Region of Ghana, Western Region Coastal Foundation (WRCF) and the Modernization of Agriculture in Ghana (MAG).

Dr Anani has participated in a number of national and international conferences and workshops during which he delivered papers. He has over twenty (20) publications made up of refereed journal articles, technical papers and training manuals. He is a natural leader, who pursues his professional responsibilities which include research, teaching and mentoring of subordinates with diligence and passion.

Current Research

Application of functional feed additives to both farm-made and commercial fish feeds in efforts to enhance feed efficiency, fish growth performance and improve aquaculture profit. The study covers the use of phytogenic substances in fish feeds to improve feed efficiency, digestibility of dietary nutrients and overall culture fish growth performance and survival. Since feed cost is the major expense in aquaculture production, the need to improve feed efficiency is particularly important. Due to the poor quality of most commercial fish feeds, fish farmers experience considerably low fish survival, low growth rate and high feed conversion ratio with attended high production costs. As a means of overcoming these challenges facing our local fish farmers, phytogenic substances are being investigated in farm-made and commercial fish feeds for Nile tilapia, *Oreochromis niloticus* and the African catfish, *Clarias gariepinus* the most-cultured fish species in Ghana and in Africa in general.

Course

AQCU 806 Fish Nutrition and Feeding 3 Credits

Refereed Journal Papers

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Anani, F.A., Tornyeviadzi, E.N., Atsakpo, P.D.K., Agyapong, C.K. and Donkor, K.K. (2020). Effect of keeping 17 β -methyl testosterone hormonal feeds at different ambient temperatures on mono-sex male tilapia fingerlings production. *International Journal of Fisheries and Aquatic Research*, 5 (2): 64-69.

Anani, F.A., Torneyeviadzi, E.N. and Akpakli, B.K. (2020). Profitability of using different crude protein contents of the most commonly used commercial tilapia feed in Ghana for Nile tilapia (*Oreochromis niloticus*) fingerlings production. International Journal of Fisheries and Aquatic Studies, 8(3): 484-488.

Anani, F.A. and Agbo, N.W. (2019). Growth performance and cost-effectiveness of farm-made and commercial tilapia starter diets in Nile tilapia (*Oreochromis niloticus* L.) fingerling production in Ghana. Turkish Journal of Fisheries and Aquatic Sciences, 19 (12): 1001-1007.
http://doi.org/10.4194/1303.2712-v19_12_02.

Anani, F.A. and Agbeko, E. (2018). Health condition and proximate composition of Nile tilapia (*Oreochromis niloticus* L.) fed with tilapia grower diets of commercial, farm-made and their 1:1 mixture. International Journal of Fisheries and Aquatic Research, 3 (1): 9-15.

Anani, F.A., Agbeko, E. and Akpakli, B.K. (2017). Evaluation of tilapia grower diets of farm-made, commercial and their 1:1 mixture for small-scale hapa production of Nile tilapia (*Oreochromis niloticus* L.) in Ghana, Journal of Fisheries and Life Sciences, 2(2): 50-59.

Anani, F.A., Nunoo, F.K.E., Steiner-Asiedu, M., Agbo, N.W. and Nortey, T.N.N. (2017). Production and use of farm-made fish feeds by small-scale pond fish farmers in Ghana, Journal of Energy and Natural Resource Management, 4(1): 1-7. <https://doi.org/10.26796/jenrm.v4i1.66>

Anani, F. A. and Nortey, T. N. N. (2017). Apparent Nutrient Digestibility of Farm-made and Commercial Tilapia Diets in Nile Tilapia (*Oreochromis niloticus* L.). Asian Research Journal of Agriculture. 3(3): 1-9. <http://doi.org/10.9734/ARJA/2017/31937>

Anani, F.A., Nunoo, F.K.E., Steiner-Asiedu, M., Nortey, T.N.N and Agbo, N.W. (2017). Evaluation of Farm-made and Commercial Tilapia Diets for Small-scale Hapa Production of Nile Tilapia (*Oreochromis niloticus* L.) in Ghana. Journal of Applied Life Sciences International. 10(3): 1-12. <http://doi.org/10.9734/JALS/2017/31939>

Anani, F.A. and Nunoo, F.K.E. (2016.). The Length-weight relationship and condition factor of Nile tilapia, *Oreochromis niloticus* fed farm-made and commercial tilapia diets International Journal of Fisheries and Aquatic Studies, 4(5): 647-650.

Anani, F. A. and Ofori-Danson, P. K. and Abban, E.K. (2010). Pen culture of the black-chinned tilapia, *Sarotherodon melanotheron* in the Aglor Lagoon in Ghana. *Journal of the Ghana Science Association*. 12(2): 21-30.