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Emerging pollutants in Lake Tana: Potential impact on fishery and its implication on human exposure

UNESCO-IHP International Initiative on Water Quality Case Study Series on Emerging Pollutants

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Material and methods

**Lake Tana**
- The largest lake in Ethiopia
- Time of sampling: October, 2014
- Samples: Fish, water and sediment
- In total 26 PFAS were analyzed
**Result and discussion**

- **PFAS in fish muscle ranged between**
  - 2.1 ng/g (L. gorguari) and 0.85 ng/g (O. niloticus)

- **In water**
  the highest PFAS concentration found is 5.6 ng/l at waste damp area

- **In sediment**
  the PFAS concentrations showed similar contamination levels at all sites (0.2-0.5 ng/g dw)
Conclusion
Pollutants that are accumulated in water bodies could harm the fish and other biota then after many years human beings might be affected by those pollutants who are eating fish

Recommendations
• To prevent the pollution of water bodies the government of Ethiopia must educate the community on how to damp wastes
• Especially, engagement of young researchers in water governance and policy processes is the best way of water pollution prevention
• stake holders
  ❖ Governmental organization (eg. Ministry of water in Ethiopia)
  ❖ Educational organizations (eg. Universities)
  ❖ international organizations (Like UNESCO)
Poly- and perfluoroalkylated substances and fish muscle tissue from Lake Tanganyika and human exposure

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