



Associate Professor and Director of the Aquatic Ecology Lab at USFQ (Ecuador).

She works in tropical river ecology, and has a special interest in the diversity and life history of aquatic insects.

She actively works on biodiversity conservation as Co-chair of the Science Panel for the Amazon, a global project to develop and compile the best scientific information possible to promote the Amazon basin conservation in a long term.

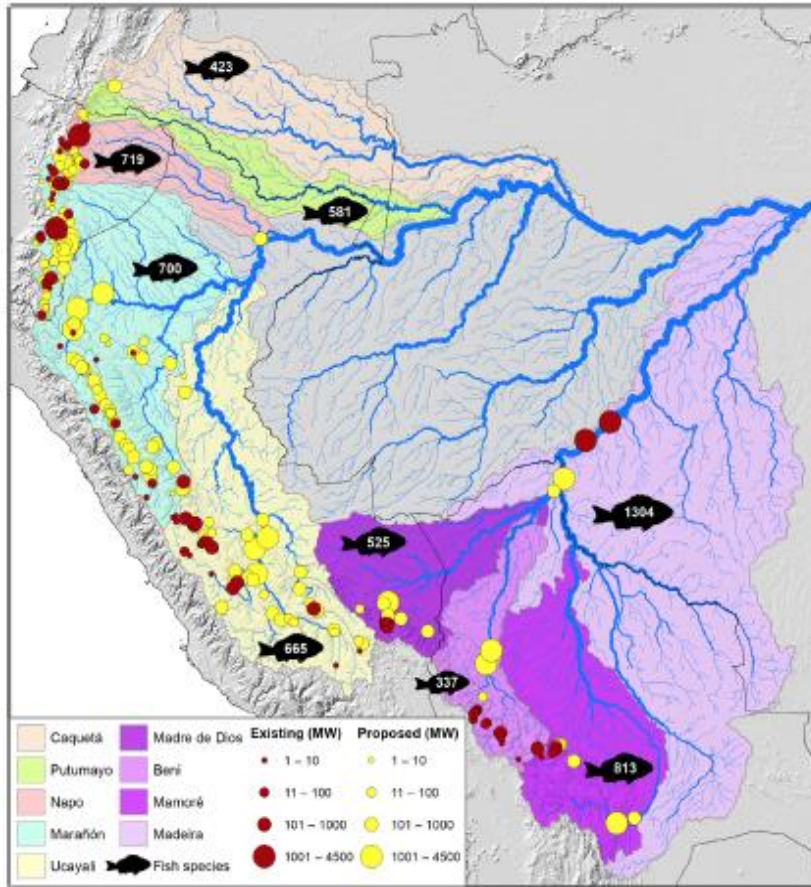
## ANDREA C. ENCALADA

ECUADOR

### HERSTORY

Andrea obtained her Ph.D. at Cornell University (USA) and work as a postdoc at the University of Coimbra (Portugal). Now, she is back to Ecuador as member of the Ecuador Scientific Academy. Andrea earned the “Matilde Hidalgo” National Award for her notorious research.

# THE AMAZON BASIN: A THREATENED BIODIVERSITY HOTSPOT



Dams existing (red) and proposed (yellow) in Andean Amazon river basins. Estimated fish species richness for each basin is depicted by the fish symbol.

Data: Elisabeth P. Anderson et al. (2018). *Frontiers in Ecology and the Environment*.

As an ecosystem, the Amazon is one of the most biodiverse places on earth.

Beyond roads and agriculture, this biodiversity is now seriously threatened by the proliferation of dams.

With a newly reported 671 freshwater fish species inhabiting the Andean headwaters of the Amazon (>500 m), dams threaten previously unrecognized biodiversity, particularly among endemic and migratory species.

Amazonian freshwater ecosystems, along with the Indigenous communities that depend on them, need to be acknowledged, understood and protected before it is too late.

# RELEVANT CONTRIBUTIONS

Anderson, E. P., Osborne, T., Maldonado-Ocampo J. A. et al. (2019). Energy development reveals blind spots for ecosystem conservation in the Amazon Basin. *Frontiers in Ecology and the Environment*, 17, 521-529.

**Encalada, A. C.**, Flecker, A. S., LeRoy Poff, N. et al. (2019). A global perspective on tropical montane rivers. *Science*, 365, 1124-1129.

Anderson, E. P., Jenkins, C. E., 2,3,4, Heilpern, S. et al. (2018). Fragmentation of Andes-to-Amazon connectivity by hydropower dams. *Science Advances*, 4, eaao1642.

**Encalada, A. C.**, Peckarsky, B. L. (2006). Selective oviposition of the mayfly *Baetis bicaudatus*. *Oecologia*, 148, 526-537.

LOOKING  
FOR MORE?

**You can find more information about her story and research at:**

[https://www.usfq.edu.ec/es/perfil/andrea-carolina-encalada-romero#:~:text=Andrea%20C.,PUCE\)%20and%20obtained%20her%20Ph](https://www.usfq.edu.ec/es/perfil/andrea-carolina-encalada-romero#:~:text=Andrea%20C.,PUCE)%20and%20obtained%20her%20Ph)

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