

## Effects of hydropeaking and refuge configurations on the behaviour of cyprinids in experimental flume conditions

### Summary

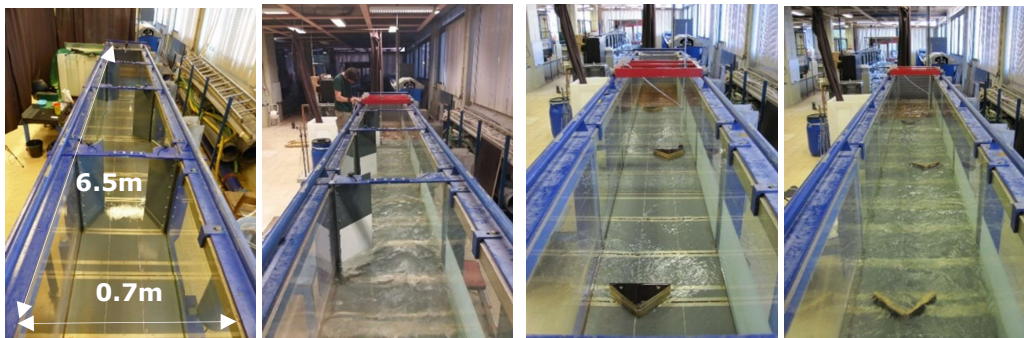
The overexploitation of water resources has disrupted the natural flow variability and induced drastic changes in the ecological processes of riverine ecosystems. Hydropower production results in daily energy peaks with the release of artificial discharge peaks downstream the hydropower plant. Hydropeaking produces marked effects on the abiotic components and the biological communities of the river system.

Although there is a considerable amount of research describing the effects of hydropeaking in fish, few report habitat structure mitigation measures and study fish behavior according to those. The aim of this work plan is to assess the movement behavior of cyprinids when exposed to different cycles of pulsed peak flows and habitat structure mitigation measures in an experimental flume.

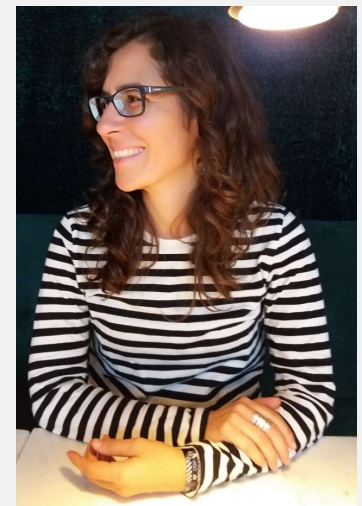
This proposal is novel in the patterns of peak flows in test and in the techniques used to quantify fish swimming activity, culminating in the design of more effective habitat mitigation measures.

### Keywords

Hydropeaking, cyprinids, velocity refuges, stress physiology, fish movement behaviour, Iberian barbell.



Experimental flume dimensions and refuge configurations tested.



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