

* T1. Biología y conservación de los organismos acuáticos
** ORAL

BIOLOGICAL TRAITS OF THE BENTHIC CYPRINIDS FROM THE SEGURA RIVER BASIN (SE IBERIAN PENINSULA): VARIABILITY AMONG HIGHLY REGULATED SECTORS.

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Variation in population biological traits (somatic condition, recruitment, size diversity and relative abundance) of three benthic Iberian cyprinid fishes, southern Iberian barbel *Luciobarbus sclateri*, Iberian straight-mouth nase *Pseudochondrostoma polylepis* and Pyrenean gudgeon *Gobio lozanoi*, were evaluated in three river sectors with different degrees of hydrological alteration from the upper part of the Segura river basin. Biological traits differed among populations of these species. Overall, recruitment, abundance and size diversity were impaired in the stretch with highly altered flow regimes. This situation could be related to the timing and magnitude of extreme water flows during reproductive period that probably negatively affects spawning success and recruitment survival of these species. On the other hand, somatic condition showed an inverse pattern with significantly lower values for the three species in the least hydrological altered stretches. The native species *L. sclateri* seemed to be better adapted and resilient to altered flow regimes whereas the non-native *P. polylepis* and *G. lozanoi* were more affected due to their reproductive periods coincide with the highest water discharges. Whilst further study is required to confirm the role and mechanism of flow regime alterations in the biological traits and abundance of these species, our findings suggest that higher water flow during reproductive period could be a critical factor controlling population dynamics of these Iberian cyprinid fishes and, to a certain extent, this situation could put at risk the persistence of their populations in the long term.