VII IBERIAN CONGRESS OF ICHTHYOLOGY

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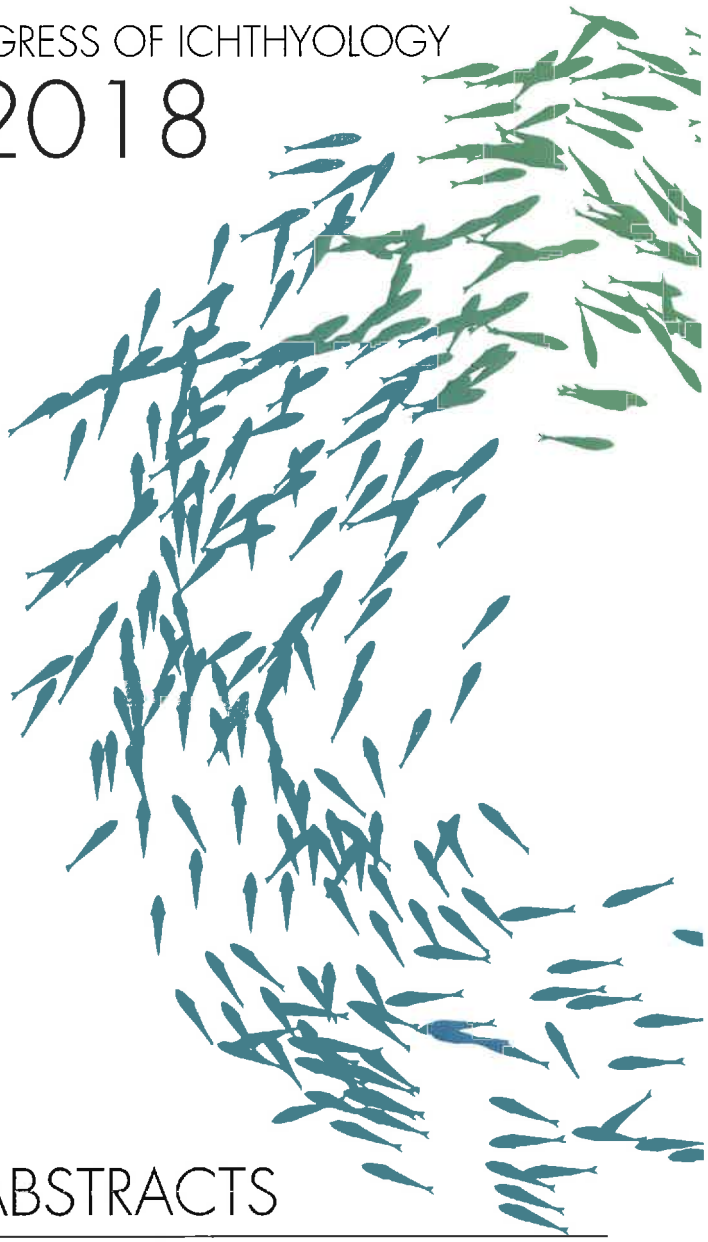

BOOK OF ABSTRACTS

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MULTIPLE INTRODUCTIONS AND FIRST RECORD OF *Phoxinus phoxinus* IN THE DOURO BASIN REVEALED BY MOLECULAR DATA

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Biological invasions are a major threat to global biodiversity. Freshwater ecosystems are particularly vulnerable to anthropogenic introductions. This is the case of the minnows (*Phoxinus* genus), which have been used as a live bait since the 1900s. Until recently, *Phoxinus phoxinus* was thought to be distributed across most of the European watercourses, including the Iberian Peninsula (Ebro Basin and Cantabrian region). In 2007, these Iberian populations were identified as *Phoxinus bigerri*, including the traslocated populations in the Douro Basin near Burgos (Spain). Currently, little is known about the distribution of *Phoxinus bigerri* in the Douro Basin. During early summer 2017, we sampled 75 stream reaches using electrofishing across the Douro Basin (Portugal and Spain). We identified 267 individuals as the Pyrenean minnow *P. bigerri*, and we cliped and stored fin tissues from 153 individuals in 96% ethanol for DNA reference collection. Among those, 26 were barcoded for cytochrome oxidase I (COI) and cytochrome b (Cytb) genes to confirm the taxonomic identification at the species level. Results confirmed for the first time the presence of the common minnow *P. phoxinus* in the Douro basin, being five individuals collected in the western Douro (Portugal near Porto) closely related to populations from Adour Basin in France. The remaining 21 individuals from eastern Douro (Spain near Brugos) were identified as *P. bigerri*, as expected. Our study is the first record of *P. phoxinus* in the Douro Basin, which can be easly missidentified when using only morphologically identifications. The study highlights the value of using molecular approaches for detecting new introductions and tracking spread histories, which can be relevant for designing proper management plans. The *P. phoxinus* introduction in western Douro (Portugal) seem to be related with human activities (sport fisheries by Portuguese immigrants living in France) rather than geographical proximity.

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