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(SASGEO)

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Leptospiral antibodies in sera of fish from the Ave river: preliminary results

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Leptospirosis is a zoonosis with world distribution, caused by infection with pathogenic spirochetes of the genus *Leptospira*. Leptospire's natural habitat is the kidney of infected animals, being disseminated via urine to the environment, where they survive outside the host in fresh water or moist soils. Thus, leptospirosis is associated with activities such as fish farming, animal and agricultural production and water-related activities.

The aim of this work was to detect leptospiral antibodies (Abs) in wild fish species (*Luciobarbus bocagei*, *Pseudochondrostoma duriense* and *Squalius carolitertii*) captured in the north of Portugal.

Sera of 29 fish caught in the Ave River basin in July 2017 were tested by Microscopic Agglutination Test (MAT). Abs were detected in 51.7% (15/29) specimens, with reactivities against serogroups Icterohaemorrhagiae, Pomona, Canicola, Sejroe, Australis and Ballum. The highest Abs titre was 1:160, observed to Icterohaemorrhagiae serovar. Leptospiral Abs were detected in 75% (9/12) of *P. duriense* and in 46.2% (6/13) of *L. bocagei*.

The results undeniably show that the sampled fish inhabit fresh water contaminated with leptospire and develop immune response, being potential sources of infection for man and animals. Further studies are needed to better understand potential public health threats.

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