



Limnología 2020

**XX Congress of the Iberian Association
of Limnology (AIL-2020)**

**III Iberoamerican Congress
of Limnology (CIL-2020)**

ONLINE CONGRESS
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26-29 October

Murcia (Spain)



Limnology in a changing world

XX Congress of the Iberian Association of Limnology (AIL-2020)

III Iberoamerican Congress of Limnology (CIL-2020)

Between 26nd and 29th of October 2020 and honouring the theme of the congress, "Limnology in a changing world", we will celebrate in a virtual form from Murcia (Southeast of Spain) the XX Congress of the Iberian Association of Limnology (AIL-2020). We highlight that the congress is the result of a fruitful coordination between the Iberian Association of Limnology (AIL) and the Iberoamerican Associations of Limnology. Thus, this congress is will be also the III Iberoamerican Congress of Limnology (CIL-2020). This event will provide a valuable opportunity, although in a virtual way, for the exchange of knowledge and experiences among Iberian and Ibero-American limnologists.

One of the main aims of this meeting is to discuss the new scientific knowledge that will be useful to improve the management and conservation of inland aquatic ecosystems (from lakes to deltas and estuaries, through rivers and wetlands). This information will be discussed under a global change scenario and considering new models of man-nature cooperation. Under the slogan "Limnology in a changing world", the congress aims to discuss key issues to manage these ecosystems that despite being of high importance for humans, are subjected to increasing human pressures and impacts.

The Iberian Southeast is one of the most arid regions in Europe. Inland aquatic ecosystems in this area acquire a great importance for their uniqueness at European scale. Arid environments offer a wide variety of aquatic ecosystems, hosting an extraordinary biodiversity. The functioning of such ecosystems is determined by extreme biophysic conditions, especially at the terrestrial-aquatic interface. Despite its conservation value, the aquatic ecosystems of this region are highly threatened by the high degree of anthropic alteration and global change.

We invite you to participate in this unique event to share experiences, to coordinate works and advance in the knowledge of aquatic ecology, thus contributing to a more sustainable inland aquatic ecosystem management. In this sense, we feel that the involvement of water managers and interested technicians and consultants is essential as a bridge between scientific knowledge and society. For this reason, our invitation is extended to this collective.

The Congress logo is an original idea
from Antonio José García Cano.

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Antimicrobial resistance in aeromonads isolated from a tributary of River Douro (Portugal)

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The inappropriate use of antibiotics, one of the causes for high incidence of antimicrobial resistant bacteria isolated from aquatic environments, represents a danger for aquatic organisms and human health. Humans acquire the Gram-negative bacilli (*Aeromonas* genus), inhabitants of aquatic environments, from a wide range of food, water sources as well as during aquatic recreational activities. This study aimed to determine the antimicrobial resistance rates among riverine *Aeromonas* spp., taken as representative of the autochthonous flora, in order to evaluate the level of antibacterial resistance in Tua River (Douro basin), and the potential risk that it represents. The prevalence and degree of antibiotic resistance was examined using motile aeromonads as indicator bacteria. Samples were collected in the middle sector of the river, the most impacted by human activities. Four water samples were collected and plated on an *aeromonas*-selective agar with and without antibiotics. From each plate, one colony was screened for presumptive motile aeromonads and tested for antibiotic susceptibility. The activity of 19 antibiotics was studied against 30 strains of *Aeromonas* spp. using the standard agar dilution susceptibility test. Antibiotic resistance frequencies were: nalidixic acid 60%, tetracycline 13%, fosfomicin 83%, tobramycin 27% and cotrimoxazole 27%, cefotaxime 40%, chloramphenicol 17%, gentamicin 27%. Some of the nalidixic acid-resistant strains were susceptible to fluoroquinolones. Multiple resistance was also observed. Aquatic environments may provide an ideal setting for the acquisition and dissemination of antibiotic resistance because they are frequently impacted by anthropogenic activities. The potential risk for resistant bacteria to spread/transmit infection to humans and animals should be considered.